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BUREAU OF FOREIGN AND DOMESTIC COMMERCE
PHILIP B. KENNEDY, Director.

MISCELLANEOUS SERIES—No. 84

COMMERCIAL HANDBOOK OF CHINA

VOLUME 1

BY

JULEAN ARNOLD
Commercial Attaché
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VARIOUS AMERICAN CONSULAR OFFICERS

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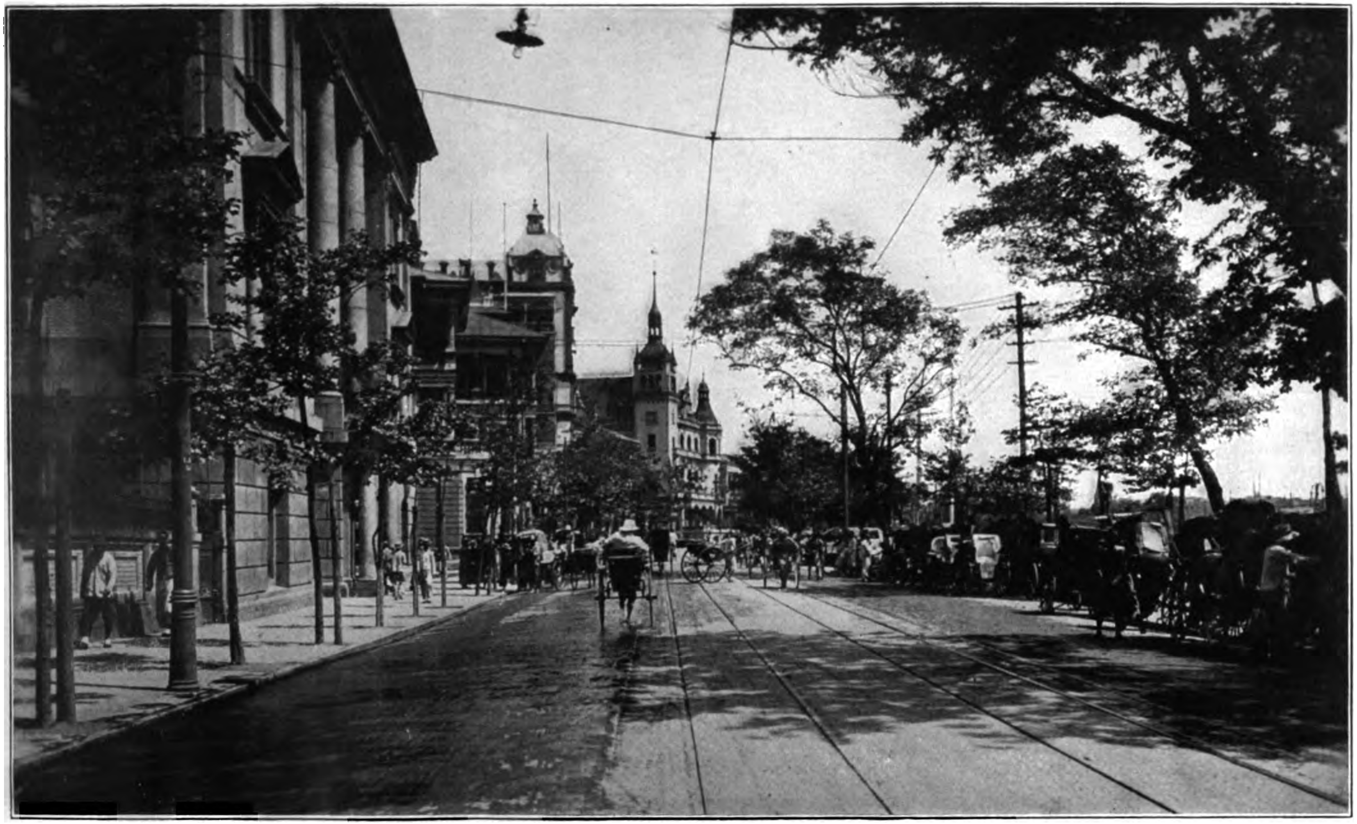

Photograph by E. M. Newman.

FIG. 1.—THE BUND AT SHANGHAI; INTERNATIONAL SETTLEMENT.

There are more than 25,000 jinrikishas on the Shanghai streets.

DEPARTMENT OF COMMERCE

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LETTER OF SUBMITTAL.

DEPARTMENT OF COMMERCE,
BUREAU OF FOREIGN AND DOMESTIC COMMERCE,
Washington, August 2, 1919.

SIR: There is submitted herewith a Commercial Handbook of China, prepared under the supervision of Julean Arnold, United States commercial attaché at Peking. The Bureau of Foreign and Domestic Commerce realizes keenly the desirability of an immediate, vigorous, and sytematic effort to promote American trade with this great friendly nation in the east of Asia. Such an effort, to attain the object sought, must be comprehensively conceived and thoroughly thought out. It must be based, therefore, on the most recent and dependable economic information. To supply that information is the purpose of the handbook.

This handbook, the most detailed publication of its kind ever issued by the Department of Commerce, will appear in two volumes. The present, or first, volume consists of an introductory chapter by Commercial Attaché Arnold, another chapter containing a mass of statistics on the trade of China as a whole, and 17 chapters covering the American consular districts in the Republic. After careful consideration it was decided that the division of China by consular districts was more practicable and more advantageous than any other method, since the information is designed solely for the benefit of American business men, with whom the consular service will at all times cooperate in the advancement of American trade in China. The Bureau of Foreign and Domestic Commerce desires to express its warm appreciation of the very generous and painstaking way in which all the representatives of the United States Government in China have contributed to the success of the book.

The chapters covering the consular districts have each been prepared in accordance with a uniform plan, which will be readily apparent upon an examination of the table of contents. The consular reports discuss area and population, physiography and climate, administration, education, agriculture, mining, communications, public works, ports and concessions, finance, industry, shipping and traveling facilities, commercial organizations, and other related aspects of trade. Every effort has been exerted to make the data concretely practical and useful. Special attention has been given to the matter of bringing all figures and specific statements of fact as nearly up to date as is possible with the information at hand. The diligence and responsiveness of the consuls have enabled the Bureau to accomplish much toward that end. It need scarcely be stated that many difficulties are inevitably encountered in the effort to collect full and accurate statistical data regarding Chinese conditions and activities.

Volume 2 will contain chapters on the Chinese system of government; Chinese history and American relations; judicial procedure; trade-marks, patents, and copyrights; tariffs and internal taxes; currency, exchange, and banking; concessions and titles; weights and measures; guilds and chambers of commerce; the position of the comprador; Chinese products of interest to American manufacturers and importers; China's industrial and commercial progress and prospects; advertising in China; labor and living conditions; land values; Chinese customs and etiquette; and numerous other subjects of interest to American business men having transactions with the Far Eastern markets.

It is the earnest hope of the Bureau that this handbook, bringing together the most recent information concerning trade movements in the great Oriental Republic, will serve to create among the exporters of the United States a more effective interest in the Chinese field. It is felt that the book will afford them an ample opportunity to become familiar with the basic trade potentialities of that important and wonderfully interesting country.

Respectfully,

PHILIP B. KENNEDY,
Director of Bureau.

To Hon. WILLIAM C. REDFIELD,
Secretary of Commerce.

COMMERCIAL HANDBOOK OF CHINA: VOLUME I.

BRIEF GEOGRAPHICAL DESCRIPTION AND SUMMARY OF CONDITIONS.

By Commercial Attaché Julean Arnold.

RELATIVE POSITION OF CHINA.

The distance from the coast of China to the coast of California is about equivalent to twice the distance from San Francisco to New York.

The northern latitude of China's territory corresponds with a line running through southern Canada, and the southern latitude with a line traversing southern Mexico. From east to west China's territory extends over a distance similar to that between the Atlantic and Pacific coasts of the United States.

AREA AND POPULATION.

Since China has not yet carried out a proper land survey or census, the area and population of its territory can be given only as estimates, as in the following table (figures for certain other countries are added for purposes of comparison):

Regions.	Area.	Population.	Density of population.
	Square miles.		*Per sq. mi.*
China proper, exclusive of three Manchurian provinces	1,533,000	336,271,000	219
Manchuria	364,000	14,917,000	41
Mongolia	1,370,000	2,500,000	2
Chinese Turkestan	550,000	1,200,000	2
Tibet	460,000	6,500,000	14
Total, Chinese territory	4,277,000	361,388,000	84
South America	6,850,000	35,000,000	5
United States, exclusive of dependencies	3,620,000	100,000,000	33
Japanese Empire	260,000	70,000,000	270
France (continental)	207,000	40,000,000	150

The population of the great Yangtze Basin is estimated at 200,000,000. Two-thirds of China's population is concentrated in one-third its area, being densest along rivers and in coastal regions. The three Manchurian Provinces and Mongolia and Turkestan offer vast areas of fertile lands and mineral wealth for development and settlement, but lack of adequate means of transportation and protection against brigandage have discouraged the settlement of these sections of the country by Chinese from the more densely populated areas of China proper.

With the exception of the area comprising the great central plain (about 200,000 square miles, or three-fifths the area of the original 13

American States), formed by the valleys of the Yellow and Yangtze Rivers, China proper is mountainous or hilly.

China is probably one of the best watered countries on the face of the globe. The Yangtze River, about 3,200 miles long, and the Yellow River, about 2,600 miles, rise in Tibet and flow east across North and Central China, emptying into the Pacific. The West River, about 1,200 miles long, rises in the Yunnan Plateau in southeastern China and flows east through South China into the Pacific. In addition to these, there are numerous canals and small streams, especially in the south.

CLIMATE.

Climatically, China may be said to enjoy two distinct seasons, summer and winter, with short autumn and spring seasons.

At Tientsin or Peking, which are in the same latitude as San Francisco and Washington, the thermometer falls to 4° F. and rises in summer to 100° F.

At Shanghai, which lies in a latitude between that of San Diego and New Orleans, the winter temperature reaches 15° F. and the summer temperature 98° F.

At Canton, which lies in the same latitude as Habana, Cuba, the temperature rarely falls in the winter below 32° F. and rises in the summer to a maximum of about 98° F.

Generally speaking, considerable rain falls in China during the spring and summer months. The winters in the north are dry and cold, often with no rainfall between the months of November and April. The winters of the central or Yangtze River region are cold and damp, while those of the south are comparatively dry and mild. The autumn season is, generally speaking, pleasant throughout China. In the north dust storms are common during the spring months.

The average annual rainfall in the north averages 25 inches, in the Yangtze region 44 inches, and in Kwangtung in the south 70 inches.

DISTANCES.

Following is a table of distances from Shanghai, the commercial metropolis of China, to nine important cities:

Shanghai to—	Traveling time.		Miles.	Corresponding distance in United States: New York to—
	Days.	Hours.		
Peking		38	830	Indianapolis.
Hongkong	2½-3		900	Chicago.
Hankow	3		600	Cleveland.
Chungking	14-25		1,425	Omaha.
Nagasaki		30	410	Augusta, Me.
Vladivostok	4		1,000	Milwaukee.
Kobe	3		750	Cincinnati.
Yokohama	5		1,100	Tampa, Fla.
New York	22-30		9,920	

STATISTICS RELATING TO PROVINCES AND CITIES.

The following tables give certain essential data concerning the Provinces of China and the important cities of the Far East:

PROVINCES OF CHINA.

Province.	Area.	Population according to Minchengpu census, 1910.	Population per square mile.	Capital of Province.
	Square miles.			
Anhwei	54,826	17,300,000	315	Anking.
Chekiang	36,680	17,000,000	463	Hangchow.
Chihli	115,830	32,571,000	281	Paoting.
Fukien	46,332	13,100,000	282	Foochow.
Honan	67,954	25,600,000	376	Kaifeng.
Hunan	83,398	23,600,000	282	Changsha.
Hupeh	71,428	24,900,000	348	Wuchang.
Kansu	125,483	5,000,000	40	Lanchow.
Kiangsi	69,498	14,500,000	208	Nanchang.
Kiangsu	38,610	17,300,000	448	Nanking.
Kwangsi	77,220	6,500,000	84	Kweilin.
Kwangtung	100,000	27,700,000	277	Canton.
Kweichow	67,182	11,300,000	168	Kweiyang.
Shansi	81,853	10,000,000	122	Taiyuan.
Shantung	55,984	29,600,000	528	Tsinan.
Shensi	75,290	8,800,000	116	Sian.
Szechwan	218,533	43,000,000	205	Chengtu.
Yunnan	146,714	8,500,000	58	Yunnan.
Shengking (Manchuria)	363,700	14,917,000	41	Mukden.
Kirin (Manchuria)				Kirin.
Heilungkiang (Manchuria)				Aigun.
Total	1,896,515	351,188,000	174	
Sinkiang	....	2,491,000	....	
Manchu military organization	....	1,700,000	....	
Dependencies	....	760,000	....	
Tibet (Chinese estimate)	....	6,500,000	....	
Grand total	....	362,639,000	....	

IMPORTANT CITIES OF THE FAR EAST.

Name of city.	Province or country.	Population.				
		Total.	Foreign.			
			In city.		In consular district.	
			European and American.	American.	European and American.	American.
Amoy	Fukien	150,000	179	51	250	81
Antung	Manchuria	20,000	....	....	67	10
Bankok	Siam	630,000	2,000	....	....	....
Calcutta	India	1,225,700	....	....	....	....
Canton	Kwangtung	1,500,000	800	250	....	575
Changsha	Hunan	500,000	185	80	507	224
Chefoo	Shantung	65,000	313	49	1,000	325
Chungking	Szechwan	300,000	140	40	....	180
Dairen	Manchuria	58,000	91	6	....	....
Foochow	Fukien	600,000	....	....	523	221
Hakodate	Japan	100,000	119	39	....	....
Hankow. {Hanyang Wuchang Hankow}	Hupeh	1,500,000	1,607	200	....	561
Harbin	Manchuria	100,000	[a] 55,775	75	[a] 75,000	75
Hongkong	British colony	460,000	7,750	250	....	....
Kelung (Taihoku)	Formosa	50,000	45	8	79	10
Kobe	Japan	450,000	....	....	1,500	350
Manila	Philippine Islands	350,000	5,912	5,474	....	8,539
Mukden	Manchuria	125,000	150	21	....	40
Nagasaki	Japan	162,000	....	....	....	....
Nanking	Kiangsu	200,000	234	150	....	....
Saigon	French Indo-China	200,000	3,500	....	....	....
Seoul	Chosen	300,000	257	127	1,108	700
Shanghai	Kiangsu	1,200,000	13,596	1,720	....	2,213
Swatow	Kwangtung	31,000	....	....	....	....
Tientsin	Chihli	1,000,000	....	276	9,646	978
Peking	do	700,000	....	405		
Tokyo	Japan	2,000,000	....	....	....	....
Tsingtau	Shantung	58,000	474	28	474	28
Vladivostok	Siberia	115,000	85,000	50	....	....
Yokohama	Japan	397,000	2,140	382	3,175	854

[a] Including Russians.

The following sections give brief summaries of general conditions in all the Provinces and outlying dependencies of China. The areas and populations are estimated. The reader will find *detailed* descriptions of these regions in the 17 chapters (representing the American consular districts in China) that form the body of the present volume.

PROVINCE OF ANHWEI.[1]

Area.—55,000 square miles.

Population[2].—20,000,000; 360 per square mile; densest in north.

Topography.—South of Yangtze, mountainous; central section, fertile, well-watered plain; north of Hwai River, plains subject to droughts and inundations.

Agriculture.—Rice, cotton, wheat, and tea are raised. The central section exports large quantities of rice; the north wheat, beans, sorghum, tobacco, and millet; the south tea and silk exclusively.

Minerals.—Coal is widely distributed, but is of low quality. Iron deposits are large and of good quality.

Industries.—Anhwei supplies a large proportion of China's native ink. Native paper is produced abundantly in the south. Wuhu has several modern rice and flour mills and is destined to become an important industrial city.

Communications.—Rivers: Yangtze (ocean-going steamers), Hwai, and tributaries. Railways: Tientsin-Pukow line through northeastern sections; projected line from Wuhu southwest to Nanchang in Kiangsi. Post offices, 79. Telegraph stations, 27.

Cities.—Of more than 100,000 population: Anking (capital). Wuhu, Pochow. Other important cities: Tatung, Hweichow, and Luchowfu.

Treaty port.—Wuhu.

Language and characteristics of natives.—Mandarin is spoken. The natives are simple, hardworking, and peaceable.

American interests.—Under jurisdiction of Nanking consulate.

PROVINCE OF CHEKIANG.

Area.—37,000 square miles.

Population.—17,000,000; 460 per square mile; densest in north and northeast.

Topography.—South and west mountainous; large fertile plains in the north; rich agriculturally.

Agriculture.—Rice, tea, silk, cotton, wheat, hemp, indigo, sugar, and fruits are produced. Rice is the principal crop. Tea is grown in hills. Silk produces two crops, for which the Province is noted. Cotton is increasing in importance, the districts between Shaohing and Ningpo producing an excellent quality in abundance.

Minerals.—There are iron, coal, alum, and soapstone deposits, but they are little developed.

Industries.—Silk forms the leading industry. Huchow produces the best raw silk and Hangchow the best silk cloth. There are two cotton mills with 50,000 spindles for the manufacture of cotton yarn. Kashing is noted for its brass and copper ware. Fans, umbrellas, joss paper, and Chinese pens (brushes) are made in large quantities in Hangchow. Shaohing produces China's best samshu (rice wine), of which it shipped 6,000 tons in 1916. The soapstone ware of Wenchow is famous.

Communications.—Waterways: The Province is a network of rivers, canals, and creeks, navigable by native craft. There is a steamer service between Shanghai, Ningpo, and Wenchow. Railways: Shanghai-Hangchow-Ningpo; projected, Hangchow-Wuhu and Ningpo-Wenchow. Post offices, 73. Telegraph stations, 34.

Cities.—Of more than 500,000 population: Hangchow (capital). More than 100,000: Shaohing, Ningpo, Huchow. Other important cities: Lanchi, Kashing, Chuchow, Kinhwafu.

Treaty ports.—Hangchow, Ningpo, Wenchow.

Language and characteristics of natives.—A form of Mandarin is spoken. The natives are enterprising; they are splendid seamen.

American interests.—Under the jurisdiction of the Shanghai consulate general.

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[1] Pronounced "Anwhay."

[2] The estimates of population given in these brief descriptive sections are not precisely the same as the figures of the Minchengpu "census" of 1910, nor do they correspond in every instance with the figures furnished by the consuls in the later chapters of this book. Since all statistics purporting to show the population of Chinese Provinces and cities are merely rough estimates, it has not been considered necessary, in this case, to adhere rigidly to unvarying figures. Where differences occur they may be regarded as representing divergent opinions.

PROVINCE OF CHIHLI.[1]

Area.—116,000 square miles.

Population.—30,000,000; 250 per square mile; densest in plain toward the southwest.

Topography.—Mountainous in north and west; great eastern plain is hot and very productive in summer, but cold and subject to dust storms in winter, with streams frozen.

Agriculture.—Sorghum, millet, wheat, Indian corn, beans, and peanuts constitute the main crops. Wheat is sown in the late fall and harvested in early summer, after which the other crops are planted, corn and beans being planted in the same fields. Other products are hemp, cotton, fruits, vegetables, and walnuts. The cotton is grown in the south, in short staple, and finds a ready market in America.

Minerals.—There are deposits of coal (anthracite and bituminous), limestone, and salt. The Province is particularly rich in high-class coal, with a number of large mines worked by modern machinery and methods.

Industries.—Tientsin is a great export and import center. There are nine wool-cleaning works, besides hydraulic presses for wool, jute, skins, rugs, and hides, in preparation for export; these are under foreign management. Soap, candle, match, and cigarette factories with modern machinery and two modern cotton-yarn mills with 25,000 spindles each are among the industries of Tientsin. More than 1,000 tons of pigs' bristles are exported annually from North China. A cement plant produces 600,000 barrels annually. The coal mines and railway shops at Tangshan are big industries. Tientsin is the export center for North China.

Communications.—Waterways: Pei Ho (river) and Grand Canal, navigable for small boats. Railways: Peking-Mukden, Tientsin-Pukow, Peking-Kalgan, Peking-Hankow, and Peking-Mentowkow. Post offices, 191. Telegraph stations, 76.

Cities.—Of more than 500,000 population: Tientsin, Peking (national capital). More than 100,000: Paotingfu.

Treaty ports.—Tientsin, Kalgan, Kweihwacheng, Hulutao, Chihfeng, Dolon-nor, and Chinwangtao.

Language and characteristics of natives.—Northern Mandarin is spoken. The natives include Chinese, Mongols, and Manchus with predominance of Tartar blood.

American interests.—Under jurisdiction of Tientsin consulate general. American Legation at Peking has jurisdiction over whole of China.

PROVINCE OF FUKIEN.[2]

Area.—46,000 square miles.

Population.—13,000,000; 280 per square mile; densest along coast and in Min River Valley.

Topography.—The Province is mountainous, the mountains running parallel with the coast. The coast is broken with many bays and three good harbors, Santuao, Foochow, and Amoy. The climate is semitropical.

Agriculture.—Rice, tea, wheat, sugar, bamboo, oranges, and camphor are the principal products.

Minerals.—Coal, iron, and potter's clay are the principal mineral products, though there are deposits of iron ore and coal that have not been developed.

Industries.—Foochow poles from the Foochow hinterland are exported in large quantities. The leading native industry is the manufacture of paper from bamboo pulp. The tea industry has dwindled from a position of first importance. Wanyao manufactures pottery on a large scale. Foochow lacquer is famous throughout China. The sugar industry is important, but there are only six small modern mills; it is capable of large development. There are two fruit canneries at Amoy with modern equipment. The camphor industry is gradually dying away, because of scarcity of trees. There is a large emigration of natives to Taiwan (Formosa), the Philippines, and Singapore.

Communications.—Waterways: Coastwise trade, Amoy, Foochow, and Santuao connected with Shanghai and Hongkong; Min River navigable for small boats beyond Yenpingfu. Railways: Amoy-Changchow, under construction. Goods generally carried on backs of coolie carriers. Post offices, 75. Telegraph stations, 16.

Cities.—Of more than 500,000 population: Foochow (capital). More than 100,000: Amoy. Other large cities: Changchowfu and Chuanchowfu. There are 22 other cities with populations of more than 20,000.

Treaty ports.—Amoy, Foochow, and Santuao.

Language and characteristics of natives.—The Amoy, Foochow, Shaowu, and Southern Mandarin are the principal dialects. The natives are independent and adventurous.

American interests.—Under jurisdiction of Foochow consulate for North Fukien and Amoy consulate for South Fukien.

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[1] Pronounced "Jeerhlee."

[2] Pronounced "Fookee-en."

PROVINCE OF HONAN.[1]

Area.—68,000 square miles.

Population.—25,000,000; 375 per square mile; slightly denser in north.

Topography.—Hilly on western boundary, with plains elsewhere; floods of Yellow River a constant menace; climate fairly severe; soil fertility good.

Agriculture.—Cotton, wheat, sorghum, beans, millet, sesame seed, and Indian corn are the principal products. The Province is noted particularly for cotton and sesame seed.

Minerals.—Coal and iron are the principal minerals. The Peking Syndicate operates extensive coal-mining properties in Honan.

Industries.—Coal mining and brick kilns constitute the main industries. Honan pongees form a considerable industry. Otherwise the Province is agricultural.

Communications.—Waterways: Of the three rivers, Yellow, Hwai, and Wei, only the first-named is navigable and that only in sections. Railways: Peking-Hankow, Kaifeng-Hsuchowfu, and Kaifeng-Shensi via Honanfu and Tungkwan. Extensive cart traffic over poor country roads. Post offices, 87. Telegraph stations, 31.

Cities.—Of more than 100,000 population: Kaifengfu (capital). Twelve cities with populations exceeding 20,000.

Treaty ports.—None.

Language and characteristics of natives.—Mandarin is spoken. There are few immigrants from other Provinces and few native tribes.

American interests.—Under jurisdiction of Tientsin consulate general for region north of Yellow River and Hankow consulate general for territory south of river.

PROVINCE OF HUNAN.[2]

Area.—83,000 square miles.

Population.—24,000,000; 280 per square mile; densest in river valleys and around Tung Ting Lake.

Topography.—Mountainous, especially in west and south; Tung Ting Lake (75 by 60 miles) in northeast, four rivers emptying into it; plains south of Changsha.

Agriculture.—Probably no Province surpasses Hunan in agricultural wealth. Rice is the main crop. Tea, beans, ramie, sesame, bamboo, wood oil, vegetable tallow, and wheat are among its products. It also produces excellent pork.

Minerals.—There is abundant mineral wealth. Antimony, lead, zinc, coal, iron, manganese, tin, and quicksilver are the principal minerals. Hunan produces a large proportion of the world's supply of antimony. The iron, lead, coal, zinc, and tin deposits are actively worked and are productive of much wealth.

Industries.—Mining is the main industry. Native paper from bamboo pulp, grass cloth, silk embroideries, and cotton nankeens are extensively manufactured. Hunan hams are shipped all over China. Bamboo manufactures are noted. Changsha is developing into an industrial center.

Communications.—Waterways: Steamer traffic on lake and between Changsha and Hankow; Siang, Li, and Yuan Rivers navigable, except during low-water season in winter. Railways: Changsha is connected by rail with Hankow and will be connected in a few years with Canton. Hunan is connected by roads with neighboring Provinces. Post offices, 57. Telegraph stations, 36.

Cities.—Of more than 100,000 population: Changsha (capital), Changteh, and Siangtan. No other large cities.

Treaty ports.—Changsha and Yochow.

Language and characteristics of natives.—The local Mandarin dialect is spoken. The natives are progressive and militant; they were formerly antiforeign.

American interests.—Under jurisdiction of Changsha consulate.

PROVINCE OF HUPEH.[3]

Area.—71,000 square miles.

Population.—25,000,000; 350 per square mile; densest on the plain.

Topography.—It is said of Hupeh that it is three parts hills, six parts water, and one part habitable land. The Yangtze and Han Rivers intersect the Province, as well as numerous lakes and canals.

Agriculture.—Rice, cotton, tea, and beans form the principal crops. Sesame, tobacco, wheat, ramie, and silk are also important products. Eggs and egg products, nutgalls, vegetable and animal tallows figure in the export trade of Hupeh.

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[1] Pronounced "Hônan."
[2] Pronounced "Hoonan."
[3] Pronounced "Hoobay."

Minerals.—Iron and coal are the main minerals. The Tayeh Iron Mines of Hupeh are the largest in China.

Industries.—Iron and steel production is very important. Hankow is called the "Chicago of China." It is a great collection and distribution center. Cotton mills, ore refineries, flour mills, iron works, oil mills, egg-products plants, cigarette factories, and cement plants are among its industries. Hankow is the center of the tea industry in China. The Province produces enormous quantities of fish. With Tientsin Hankow shares the bulk of the hide export trade. It is the principal export center for sesame, wood oil, cotton, egg products, hides, vegetable tallow, vegetable oils, and nutgalls.

Communications.—Waterways: Ocean-going steamers to Hankow eight months in the year; river traffic between Hankow and upper Yangtze, Hankow and Changsha, and Hankow and Laohokow (on Han River). Railways: Peking-Hankow, Wuchang-Changsha (to be completed later to Canton). Provincial roads many, but in poor condition. Post offices, 90. Telegraph stations, 39.

Cities.—Hankow, Wuchang, and Hanyang, the three "Han cities," have a combined population of 1,500,000. Hupeh has six other cities with more than 25,000 population.

Treaty ports.—Hankow, Ichang, Shasi.

Language of natives.—Mandarin is spoken. There are but few immigrants in the Province.

American interests.—Under jurisdiction of Hankow consulate general.

PROVINCE OF KANSU.[1]

Area.—125,000 square miles.

Population.—5,000,000; 40 per square mile; most sparsely populated Province.

Topography.—Mountains cross Kansu northwest to southeast; south very mountainous, east and northeast large, fertile, loess plateau, north wild and uninhabitable; climate dry, with cold, dry winters.

Agriculture.—Wheat, cotton, rhubarb, licorice root, tobacco, and fruits are the principal products. The Province is pastoral rather than agricultural, and sheep and cattle are raised.

Minerals.—Little is known regarding the mineral wealth.

Industries.—Tobacco, wool, and sheep raising constitute the main industries.

Communications.—Waterways: Tributaries of Yellow River navigable during summer season for short distances for small boats. No railways. Country roads adapted to cart traffic. Post offices, 21. Telegraph stations, 18.

Cities.—Lanchowfu (capital), population 500,000. Other important cities: Tsinchow, Siningfu, Liangchow.

Treaty ports.—None.

Language and characteristics of natives.—Western Mandarin is spoken. The people are mostly illiterate. A large number are Mohammedans. There are some Mongols in the north.

American interests.—Under jurisdiction of Hankow consulate general.

PROVINCE OF KIANGSI.[2]

Area.—68,000 square miles.

Population.—15,000,000; 210 per square mile; densest around Poyang Lake and in Kan Valley.

Topography.—Mountainous, except Poyang Lake basin; country around lake, marshy; Kan River drains larger part of Province; climate humid.

Agriculture.—Rice, tea, tobacco, bamboo, peanuts, fruits, indigo, and grains are the main products. Camphor trees are found in many places. Ramie is quite extensively grown.

Minerals.—There are deposits of coal, kaolin, and copper. It is estimated that the Pinghsiang coal mines, producing a million tons a year, could continue production for several hundred years.

Industries.—Coal mining and the manufacture of coke and briquettes constitute a great industry at Pinghsiang, where modern machinery and methods are employed. The porcelain industry of Kiangsi is far famed. About one-half of China's production of grass cloth is made in Kiangsi.

Communications.—Waterways: Steamers through Poyang Lake and Kan River to Nanchang; Kan River and tributaries navigable for native boats. Railways: Kiukiang-Nanchang, Pinghsiang-Chuchow; line projected from Nanchang to Santuao or Swatow. The country roads are poor, most of the traffic being by water. Seventy or 80 walled cities can be reached by boat the greater part of the year. Post offices, 85.

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[1] Pronounced "Gonsoo." [2] Pronounced "Geeongsee" in the north and "Keeongsee" in the south.

Cities.—Of more than 100,000 population: Nanchang (capital), Kanchow, Kianfu, and Kingtehchen. Six other cities of more than 25,000.

Treaty port.—Kiukiang.

Language of natives.—Mandarin, except in the east, where a dialect of Fukienese is spoken.

American interests.—Under the jurisdiction of the Hankow consulate general.

PROVINCE OF KIANGSU.[1]

Area.—37,000 square miles.

Population.—18,000,000; 450 per square mile; densest on Haimen promontory and Tsungming Island.

Topography.—Great alluvial plain, south comprising portion of Yangtze delta, 120 by 60 miles; land low lying, abounding in swamps and lagoons; noted for fertility.

Agriculture.—Silk, cotton, rice, beans, peanuts, wheat, bamboo, vegetables, and fruits are the main products. Wusih enjoys the reputation of producing the finest silk in the world. Cotton is being produced in larger quantities each year.

Minerals.—The Province is poor in minerals.

Industries.—The greatest development has been in the cotton industry. There are 25 to 30 mills with a total of a million spindles operating at Shanghai. The number of looms is increasing and promises rapid development also. Flour mills, oil mills, egg-products plants, rice mills, furniture factories, glass works, ice and cold-storage plants, match factories, paper mills, electric lamp factories, chemical works, shipbuilding and engineering works, soap and candle factories, cigarette factories, sawmills, printing and publishing houses, etc., are among the industries that make Shanghai the leading manufacturing center of China. Kiangsu's leading industry is silk. Wusih, Nanking, and Soochow are the principal centers for the manufacture of the silk cloth.

Communications.—Waterways: All the rivers are navigable, and the Province is interlaced with canals. Railways: Shanghai-Nanking; Shanghai-Hangchow-Ningpo; Shanghai-Woosung. Country roads are poor and few in number, as water transportation makes them unnecessary. Post offices, 98. Telegraph stations, 62. Cable companies, 3.

Cities.—Of more than 1,000,000 population: Shanghai. More than 500,000: Soochow. More than 100,000: Nanking (capital), Wusih, Chinkiang, Yangchow.

Treaty ports.—Shanghai, Chinkiang, Nanking, Soochow, Woosung.

Language of natives.—Throughout Province, Soochow or Shanghai dialect and Mandarin; in Shanghai, besides Shanghai dialect, also Ningpo and Cantonese.

American interests.—In eastern section of Province, under Shanghai consulate general; in western half, under Nanking consulate.

PROVINCE OF KWANGSI.[2]

Area.—77,000 square miles.

Population.—6,500,000; 84 per square mile; south and southeast most populous.

Topography.—Mountainous, ranges running southwest to northeast; West River and tributaries have good fertile valleys; climate tropical in south.

Agriculture.—Rice, sugar, fruits, grains, bamboo, aniseed, and cassia are the main products.

Minerals.—Antimony, coal, tin, iron, asbestos, and galena are known to abound. Very little has been done to develop what is considered a great store of mineral wealth in Kwangsi.

Industries.—Although proverbially poor, the Province seems to offer much opportunity for development. The world's supply of star-anise is produced there. Cassia is also produced. Firecrackers and leather are made at Nanning. Wuchow has a hosiery factory, a silk filature, a glass factory. Fishing lines made from the intestines of a species of silk worm, which feeds on the camphor tree, form a specialty peculiar to this Province.

Communications.—Waterways: Steamer traffic on West River; launch service to Lungchowfu; motor boats ascend Fu tributary to Kweilin. No railways. Country roads poor and in bad condition. Post offices, 31. Telegraph stations, 43.

Cities.—Of more than 75,000 population: Nanning, Wuchow, and Kweilin (capital).

Treaty ports.—Wuchow, Nanning, and Lungchow.

Language of natives.—Mandarin in north, Cantonese in south.

American interests.—Under the jurisdiction of the Canton consulate general.

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[1] Pronounced "Geeongsoo" in the north and "Keeongsoo" in the south.

[2] Pronounced "Gwongsai."

PROVINCE OF KWANGTUNG.[1]

Area.—100,000 square miles.

Population.—28,000,000; 280 per square mile; densest in West River delta and along the coast.

Topography.—Mountainous, except in valleys of West River; mountains extend southwest to northeast; valleys and delta regions very fertile, giving three crops a year; well-indented coast line, with good harbors; tropical.

Agriculture.—Silk, rice, sugar, tobacco, cassia, fruits, vegetables, bamboo, tea, cotton, ginger, indigo, ramie, camphor, and hemp are the main products. Rice is the principal crop, in some places three crops being produced in a year. A very superior hemp is grown, and the same is true of ramie, the latter being manufactured into grass cloth. The silk is inferior to Kiangsu or Chekiang silk. The oranges, lichees, pomeloes, and ginger of Kwangtung are of very high quality and are far-famed.

Minerals.—Iron and coal of good quality are known to abound. The mineral wealth of Kwangtung is still to be determined definitely, though it is believed to be extensive.

Industries.—The weaving of silk, grass cloth, and cotton, the manufacture of matting, paper, hosiery, porcelain, firecrackers, silverware, hardwood furniture, ivory materials, lacquer, jade, ornaments, embroideries, medicines, and drugs, and the preserving of fruits, ginger, etc., are among the manifold industries of the Cantonese, noted for their progressiveness and industrious habits.

Communications.—Waterways: Steamer service with all coast ports; splendid launch service in the Delta region; water connections with adjacent Provinces, so that country roads are few, though stone-paved and narrow and connecting market towns beyond reach of waterways. No wheeled vehicles used in Province, except railway cars. Railways: Canton-Samshui, Canton-Shiuchow, Canton-Kowloon (Hongkong), Kongmoon-Taishan, Swatow-Chaochowfu; under construction, Canton-Hankow. Post offices, 131. Telegraph stations, 70.

Cities.—Of more than 1,000,000 population: Canton (capital), most populous city in China. Between 100,000 and 500,000: Fatshan, Chaochowfu, Hongkong, Sheklung, Shekki, Samshui, Siulam, and Kongmoon. More than 25,000: Swatow, Macao, Hokshan, and Shaping.

Treaty ports.—Canton, Swatow, Kongmoon, Kowloon, Lappa, Pakhoi, Samshui, Hongkong (ceded to Great Britain), Macao (ceded to Portugal), and Kwangchow (leased to France).

Language and characteristics of natives.—Cantonese and tribal dialects are spoken. There are aborigines in the west and Hakkas in the northeast. Ninety-five per cent of the Chinese who emigrated to America were Cantonese.

American interests.—In northern half, under jurisdiction of Swatow consulate; in southern half, of Canton consulate general.

PROVINCE OF KWEICHOW.[2]

Area.—67,000 square miles.

Population.—8,000,000; 120 per square mile; densest in south and southeast.

Topography.—Seven-tenths mountainous; a great table-land with mean altitude over 4,000 feet; valleys of Yuan and Wu Rivers deep and narrow.

Agriculture.—Tobacco, bamboo, wood oil, fruits, and wheat are the principal products, though the Province has the reputation of being the most unproductive in China.

Minerals.—Coal, nitrate of potash, iron, zinc, nickel, silver, and quicksilver are said to abound. Kweichow is reputed to be wealthy in minerals, but unexplored.

Industries.—Mining seems to lend the greatest promise for the future in industry in this Province, claimed by some to be the richest in mineral wealth of all the Provinces in China.

Communications.—Waterways: Yuan and Wu both navigable. Four chief roads radiate from Kweiyang, connecting with Chungking, Tatingfu, Hunan, and Kwangsi. No railways. Post offices, 30. Telegraph stations, 14.

Cities.—Kweiyang (capital), 100,000; Anshunfu, 50,000; Tsunyi, 40,000.

Treaty ports.—None.

Language and characteristics of natives.—Mandarin is spoken among the Chinese, and there are also tribal dialects. One-third of the people are Chinese and the remainder aborigines.

American interests.—Under the jurisdiction of Canton consulate general.

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[1] Pronounced "Gwongdoong."

[2] Pronounced "Gwayjoe."

PROVINCE OF SHANSI.[1]

Area.—82,000 square miles.

Population.—10,000,000; 122 per square mile; densest in fertile depressions.

Topography.—A great loess plateau from 2,000 to 6,000 feet in elevation, with irregular mountain ranges running east and west; several large depressions, formerly lakes, form the fertile and populous sections of the Province; winters very cold, summers very hot.

Agriculture.—The loess soil is very fertile. Wheat, millet, sorghum, maize, cotton, tobacco, and fruits are the principal products.

Minerals.—Shansi is reputed to be the richest Province in China in coal deposits, producing now 4,000,000 tons a year—about one-fourth of China's production—but capable of supplying the world's demands for centuries. The Province is also rich in iron.

Industries.—Coal mining forms the principal industry. At one time, Shansi was noted for its cast-iron products.

Communications.—Waterways: The Fen River is navigable for flat-bottomed boats for 40 miles during a short season of the year. Cart roads traverse the fertile plains, but often far below the surface of the surrounding country, forming veritable canyons. Railways: Taiyuanfu, the capital, is connected with the Peking-Hankow Railway; the Peking-Kalgan line extends to Tatungfu. Post offices, 40. Telegraph stations, 18.

Cities.—Between 50,000 and 100,000; Taiyuanfu (capital) and Kweihwating. There are a dozen cities with populations of more than 20,000.

Treaty ports.—None.

Language of natives.—Mandarin.

American interests.—Under jurisdiction of Tientsin consulate general.

PROVINCE OF SHANTUNG.[2]

Area.—56,000 square miles.

Population.—30,000,000; 525 per square mile; most densely populated Province; densest in west.

Topography.—Mountainous in eastern and southern sections; western Shantung a great plain. Yellow River flows in northeasterly direction through Province, with frequent floods; soil rich; one good harbor (at Tsingtau).

Agriculture.—Wheat, cotton, maize, sorghum, millet, tobacco, hemp, peanuts, silk, fruits, walnuts, and vegetables are the principal products. It is a rich agricultural Province. Shantung produces the largest quantity of peanuts, mostly for export. A fine quality of tobacco from American seeds is grown.

Minerals.—Coal, iron, and gold are the principal minerals. A high quality of soapstone is also found. The coal and iron are being worked with modern methods and modern machinery and have developed into important industries.

Industries.—Strawbraid, from wheat straw and for straw hats; vermicelli, from beans, wheat, and sometimes sweet potatoes; pongee silk, from cocoons fed on oak leaves; bristles from pigs; egg albumen and yolk; cattle; and peanut and bean oils—these are some of the products that contribute to Shantung's activities. With iron and coal mining, they constitute the industries of the Province.

Communications.—Waterways: Grand Canal, principal waterway of commerce; Yellow River navigable through Shantung by small native craft only. Railways: Tientsin-Pukow, Tsinan-Tsingtau, with branch to Poshan. Country roads used extensively throughout Province for carts, wheelbarrows, and pack animals. Post offices, 104. Telegraph stations, 81.

Cities.—Tsinan (capital), 250,000. More than 75,000: Chefoo, Tsining, Tsingtau, and Weihsien.

Treaty ports.—Chefoo, Tsingtau (leased to Germany and now occupied by Japan), Tsinan, Chowtsun, Lungkow, Weihsien, Weihaiwei (leased to Great Britain).

Language and characteristics of natives.—Northern Mandarin is spoken. The natives are hardy and peaceable.

American interests.—In Shantung promontory, under jurisdiction of Chefoo consulate; in central and southern Shantung, under Tsinan consulate; in Kiaochow, under Tsingtau consulate.

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[1] Pronounced "Shonsee."

[2] Pronounced "Shondoong."

PROVINCE OF SHENSI.[1]

Area.—75,200 square miles.

Population.—8,000,000; 105 per square mile; densest in Han and Wei River Valleys.

Topography.—High mountain ranges extend across northern and southern ends of Province; north of Wei River country is a great fertile, low tableland; Wei Basin is called "cradle of China;" Province was once noted for forests, but now hills are denuded of trees.

Agriculture.—The valleys of the Wei and Han Rivers are particularly productive. The Wei basin produces the finest quality of cotton grown in China. Wheat, corn, tobacco, Irish potatoes, alfalfa, beans, oats, barley, millet, peanuts, silk, persimmons, and rapeseed are also produced in Shensi, the staple crop being wheat.

Minerals.—Shensi's mineral wealth remains to be exploited. Its inaccessibility and lack of waterways and good roads have prevented development. Droughts and rebellions have also discouraged effort.

Industries.—Native flour mills operated by water wheels are numerous. Mules, cattle, and sheep are raised in large numbers.

Communications.—Waterways: The Han River is navigable as far up as Hanchungfu; the Province is poor in navigable waterways. Railways: None; a projected line crosses central China through the Wei Basin to central Asia. There is a good road crossing from Shansi over the Wei Basin into central Asia, over which the traffic, by carts and pack animals, is very heavy. A road also passes through this basin from Peking to Chengtu in Szechwan, following also the Han River Valley but crossing over mountain passes 8,000 feet high. Carrying coolies and pack animals by the thousands may be seen on this great highway. Post offices, 37. Telegraph stations, 7.

Cities.—Sianfu (capital), population 500,000.

Treaty ports.—None.

Language of natives.—Mandarin.

American interests.—Under jurisdiction of Hankow consulate general.

PROVINCE OF SZECHWAN.[2]

Area.—220,000 square miles.

Population.—45,000,000; 200 per square mile; Chengtu plain, 45 by 90 miles, has densest population, estimated at more than 2,000 per square mile.

Topography.—Three-fourths of Province is a high plateau with mountains extending to an altitude of 18,000 feet; this plateau, of red sandstone, slopes toward east and southeast; southern part of Szechwan semitropical; Chengtu plain remarkably productive.

Agriculture.—Szechwan claims to produce everything raised elsewhere in China. Silk, wheat, sugar, tobacco, fibers, rhubarb, bamboo, tea, herbs, and wood oil figure among the important products. The Chengtu plain is perfectly irrigated by an artificial system 2,000 years old and is probably the most fertile spot for its size in China.

Minerals.—No proper investigation (or at least none whose results have been made public or otherwise accessible) has been made of the supposedly great mineral wealth of Szechwan, including iron, coal, copper, gold, quicksilver, and petroleum, all of which are reported as being present in quantity. The salt wells bored to a depth of 3,000 feet have disclosed the presence of petroleum and gas in considerable quantity.

Industries.—As Szechwan has but one outlet that can be advantageously used—the great Yangtze River—and even in this case navigation is fraught with danger because of the terrible rapids in the upper sections, the Province has always been self-supporting. There is much wealth there. Many of its products find their way out. The Szechwan salt wells are famous, some of them being 3,000 feet deep, bored by drills dropped down with bamboo ribbons, and requiring generations to reach this depth. It is a curious fact that the oil and gas, which comes with the brine from these wells, is treated as an evil to be gotten out of the way. The silk industry is probably the leading industry of Szechwan. Wood oil, vegetable tallow, a distinctive insect wax, musk, medicines, wool, hides, tobacco, and paper enter into the industries of the Province.

Communications.—Waterways: There is steam travel on the Yangtze as far as Suifu, and in the summer as far as Kiatingfu on the Min River. The three main branches of the Yangtze in Szechwan carry a heavy junk traffic. Navigation on the Yangtze beyond Ichang is perilous by reason of the rapids, but within recent years regular steamers have been engaged in this traffic. Railways: None, though several are projected and a concession has been granted to an American concern. There are no cart roads. Many of the roads are paved with flagstones 4 feet wide. Travel is by foot, on horseback, or by chair. Goods are carried on backs of animals or men. Post offices, 127. Telegraph stations, 40.

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[1] Pronounced "Shunsee."

[2] Pronounced "Szechwon."

Cities.—Chungking, 500,000; Chengtu (capital), 400,000. More than 100,000: Kiating, Fowchow, Wanhsien, Tzeliuching. Between 25,000 and 100,000: Chungpa, Batang, Mingyuanfu, Fengtuhsien, Kweichowfu, Suifu, and Yachowfu.

Treaty port.—Chungking.

Language and characteristics of natives.—Western Mandarin and tribal dialects. Chinese and aboriginal tribes.

American interests.—Under the jurisdiction of the Chungking consulate.

PROVINCE OF YUNNAN.

Area.—146,000 square miles.

Population.—9,000,000; 60 per square mile; densest on plains and eastern table-land.

Topography.—"The Switzerland of China;" high mountain ranges in west, table-land in south; climate healthful; good grazing lands.

Agriculture.—Wheat, cotton, silk, tea, rice, beans, tobacco, fruits, and vegetables are produced. The hams of Yunnan are famous throughout China, and pigs are well fed.

Minerals.—Yunnan is noted for mineral rather than agricultural wealth. Tin, antimony, coal, alum, arsenic, copper, gold, iron, mercury, silver, spelter, and tungsten are found in Yunnan, tin having occupied thus far the leading rôle. China's copper-coin requirements in the past have been met, it is stated, from Yunnan mines.

Industries.—Agriculture and mining have thus far given Yunnan such industries as it has.

Communications.—Waterways: The Ta and Red Rivers are both navigable by small boats for short distances. Railways: Haiphong-Hanoi-Yunnanfu. Roads: Only paths. Post offices, 42. Telegraph stations, 33.

Cities.—Yunnanfu (capital), Chaotung, and Tungchwan, each with less than 50,000.

Treaty ports.—Mengtsz, Szemao, Tengyueh.

Language and characteristics of natives.—Western Mandarin and tribal dialects. Fifty to 60 aboriginal tribes.

American interests.—Under the jurisdiction of the Canton consulate general.

MANCHURIA (THREE PROVINCES: FENGTIEN, KIRIN, HEILUNGKIANG).

Area.—365,000 square miles.

Population.—15,000,000; 40 per square mile; densest in Liao Plain.

Topography.—Three provinces, Fengtien, Kirin, and Heilungkiang; northern region larger and better wooded, sloping toward Amur River; southern, more fertile, more thickly inhabited, sloping toward Gulf of Liaotung; Sungari plain in north and Liao plain in south have wonderful soil and splendid crops; large areas still uncultivated; on rich plateau lands, grass sometimes grows 6 feet high; climate is healthful, though winters are very severe.

Agriculture.—Manchuria contains some of the finest agricultural land in the world. It seems strange that this virgin country, so sparsely inhabited and so rich in possibilities, should have remained all these centuries in proximity to densely populated countries and not have been more effectively colonized ere this. The principal crop of Manchuria now is beans, an article whose value has only recently come to be appreciated by the outside world. Wheat ranks second in importance. Other cereals, such as millet, sorghum, and maize, are raised in large quantities. Silk, fed on oak leaves, is one of the products of Manchuria. Tobacco, beet sugar, indigo, vegetable oils, fruits, and live stock add to Manchuria's agricultural wealth.

Minerals—Practically the whole of South Manchuria is one vast coal field. Iron and gold are also found. Japanese capital is developing the coal and iron properties in a large way

Industries.—Bean oil, bean cake, and bean products generally constitute a great industry in Manchuria. Raw silk, tobacco, flour, furs and skins, lumber, and iron and coal are developing into profitable industries, employing in some cases enormous capital. The South Manchuria Railway, with its ramifications of industry, is the biggest institution in Manchuria.

Communications.—Waterways: The Amur River is navigable for 450 miles for steamers and 1,500 miles for smaller craft; the Sungari is navigable to Kirin, the

Nonni to Tsitsihar, the Liao to Tungkiangtze, and the Yalu for its entire course. Railways: Mukden is connected on the south with Tientsin and Peking, on the north with Harbin and Tsitsihar, on the southeast with Port Arthur and Dairen, and on the east with Antung; through rail service from Peking to Yokohama, via Manchuria and Korea, is established, and also in peace times from Peking to Petrograd via Manchuria. Country roads are relatively good, and travel is by carts or on mules. Post offices, 203. Telegraph stations, 132.

Cities.—Mukden and Kirin, 100,000 each. Kwangchengtze (Changchun), Harbin, Aigun, Newchwang, and Dairen are other important cities.

Treaty ports.—Aigun, Antung, Dairen (Japanese leased territory), Manchouli, Newchwang, Sansing, Suifenho, Mukden, Fakumen, Fenghwangcheng, Hsinmintun, Tiehling, Tungkiangtze, Yingkow, Liaoyang, Changchun, Kirin, Ninguta, Chientao, Tsitsihar, Hailar.

Language of natives.—Northern Mandarin is most common.

American interests.—In north, under jurisdiction of Harbin consulate; in northeast, of Antung consulate; in Dairen and leased territory, of Dairen consulate; in South Manchuria, of Mukden consulate general.

CHINESE DEPENDENCIES.

MONGOLIA.

Area.—1,370,000 square miles.

Population.—2,500,000; 2 per square mile; densest in east and in river valleys.

Topography.—A vast basin-like plateau of 3,000 to 4,000 feet elevation, surrounded by mountain ranges and undulating steppes; near center is Gobi Desert, of more than 260,000 square miles; frequent sandstorms; atmosphere dry, winters extremely cold. For purposes of administration, country is divided into two sections—northern or outer Mongolia, and southern or inner Mongolia.

Agriculture.—The country is pastoral and the people nomadic. Cattle and sheep raising is carried on, with agriculture in certain favored regions. Awaiting development are wonderful stretches of virgin fertile lands, capable of producing enormous crops, and vast stretches of land wonderfully adapted to grazing.

Minerals.—Gold has been mined for years. The mineral wealth is subject to investigation, but is reputed to be enormous.

Industries.—Cattle and sheep raising, hides, wool (sheep's and camel's), licorice, and drugs seem to form the basis of the industries.

Communications.—Waterways: Canals and rivers are little used, as they are off the trade routes. Railways: None; one projected to connect Urga, the capital, with the Peking-Kalgan line. An American automobile service has been established between Kalgan and Urga, making the trip in four days. Roads are poor and not well marked. Main highway leads from Kalgan to Kiakhta via Urga. Caravan routes lead to Siberia with camel and bullock wagon trains.

Cities.—Urga (capital), 38,000, the only important city.

Treaty port.—Taonan.

Language and characteristics of natives.—Mongolian is spoken. The people are Turkish in the west, Chinese in the south, and Mongols in Mongolia proper.

American interests.—Under jurisdiction of Tientsin consulate general.

SINKIANG (INCLUDING NEW PROVINCE AND CHINESE TURKESTAN).

Area.—550,000 square miles.

Population.—2,500,000; 4 per square mile; densest in eastern section.

Topography.—For the most part Chinese Turkestan is an immense desert, surrounded by mountains of great height and with fertile spots occurring only here and there.

Agriculture.—Where irrigation is possible, splendid crops are produced. The famous Oasis of Hami is exceptionally fertile, producing barley, oats, millet, and wheat. Its melons are famous throughout China, for in former years many were sent to the Peking Court.

Minerals.—Chinese Turkestan produces a fine quality of jade. Its mineral resources are as yet unknown.

Industries.—Horses, camels, donkeys, sheep, and goats are raised. Carpets, jade, furs, skins, and silk fabrics are among the articles produced.

Communications.—Several ancient roads, of great historical interest but in bad condition, are used as trade routes.

Cities.—Kashgar, 60,000; Yarkand, 50,000; Khotan, 30,000; Turfan, 20,000; Urumtsi, 30,000.

American interests.—Under the jurisdiction of Hankow consulate general.

TIBET.

Area.—465,000 square miles.

Population.—6,000,000; 12 per square mile.

Topography.—The greater part of Tibet is desert, but valleys in the south and west are fertile and vegetation is luxuriant. The valley of the Chumbi River is reported to be the most fertile portion. The country as a whole has the greatest average elevation of any similar area in the world. On account of its marginal mountain ranges it is almost inaccessible.

Agriculture.—In the fertile valleys fruits and vegetables are grown, as well as corn and barley. Tibet furnishes excellent pasture lands. The domestic animals, the tame yaks, asses, goats, sheep, and horses, are sources of wealth to the natives.

Minerals.—Little is known of the mineral wealth, though all writers speak of gold abounding in free form. There is a superstition against mining, so that it is discouraged. Tibet is, however, looked upon as rich in minerals.

Industries.—Yak hides, lamb skins, musk, gold dust, wool, saddle rugs, carpets, and medicines are some of the products that are exchanged for Chinese wares and products. The Tibetans generally lack enterprise, though they are spoken of highly in various other respects.

Communications.—Roads are few and bad. Rope bridges are used in crossing rivers and torrents. Sometimes the yak skin is used in making a species of light ferry boat. Government couriers have been known, traveling day and night, with relays of horses, to reach Peking from Lassa within a month.

Cities.—Towns are all small, generally with a maximum of a few hundred inhabitants. Lassa, the capital, has 40,000, more than half of whom are priests. This number is augmented considerably from time to time by pilgrims.

Treaty port.—Yatung, a small town with only a few score inhabitants.

Language and characteristics of natives.—The language of the natives is polysyllabic and highly developed. They are credited with being among the more highly endowed peoples of the world. They are fond of music and dancing and are complimented by travelers for their kindly bearing, cheerfulness, and frankness.

American interests.—Under the jurisdiction of the Chungking consulate.

COMMERCIAL STATISTICS FOR CHINA AS A WHOLE.

Prepared in the Bureau of Foreign and Domestic Commerce.

Manufacturers and merchants who are already doing business with China or who contemplate entering the field are necessarily guided in their efforts by a consideration of the purchasing and productive capacity of the country. The customary requirements, tastes, and proclivities of the Chinese people and their ability to buy articles of any given kind form the basic factors in the American exporter's problem. The extent to which any particular class of goods may be sold in the great Oriental Republic is directly indicated by past purchases. The most practicable method, therefore, of determining the possibilities of the market is by a careful investigation of commercial movements as shown by customs data. Consequently, the presentation of adequate trade statistics is regarded as of primary importance in a commercial handbook of this character.

In the 17 chapters covering the consular districts in China there are many tables showing the imports, exports, and total trade of the principal treaty ports. In the present chapter complete figures will be furnished for the trade of China as a whole. Statistics will be given for three years—1918, the most recent year; 1913, the last normal year in world trade before the beginning of the Great War; and 1904, affording a basis of comparison with Chinese commerce a decade before the outbreak of hostilities. Since, in classification and arrangement, the 1904 statistics are not readily comparable with those for 1913 and 1918, they are shown in separate tables, following the more recent figures.

In view of the fact that American exporters and importers are interested chiefly in the trade between China and the United States, the official American figures relating to that trade are given in detail

VALUE OF CHINA'S DIRECT TRADE WITH EACH COUNTRY.

The following table shows the value of China's imports from, exports to, and total trade with each country during the years 1913 and 1918; *unless otherwise indicated, all values in this book are expressed in United States currency.*

Countries.	Imports.		Exports.		Total.	
	1913	1918	1913	1918	1913	1918
Australia, New Zealand, etc.	$511,770	$1,141,158	$390,994	$1,599,755	$902,764	$2,740,913
Austria-Hungary	3,004,875	....	1,130,078	....	4,134,953	....
Belgium	11,540,680	....	4,772,324	....	16,313,005	....
British India	35,205,007	9,530,753	4,512,734	7,203,205	39,717,741	16,733,958
Canada	1,360,121	12,354,185	475,578	4,897,999	1,835,699	17,252,184
Chosen (Korea)	2,571,096	12,475,466	4,966,654	16,326,683	7,537,750	28,802,149
Denmark	73,520	229	211,042	714,025	284,562	714,254
Dutch East Indies	4,984,020	10,217,922	1,899,089	3,092,263	6,883,110	13,310,185
France	3,863,348	1,871,648	29,706,591	36,350,325	33,569,939	38,221,973
French Indo-China	3,486,086	3,291,822	1,375,676	1,901,050	4,861,762	5,192,872
Germany	20,632,450	....	12,411,388	....	33,043,840	....
Hongkong [a]	125,122,711	193,494,836	85,386,794	139,566,705	210,509,510	333,061,541

[a] The imports from Hongkong come originally from, and the exports to that colony are further carried on to, Great Britain, the Continent of Europe, America, Japan, Australia, India, the Straits, etc., and coast ports of China.

Countries.	Imports.		Exports.		Total.	
	1913	1918	1913	1918	1913	1918
Italy	$483,802	$425,512	$6,063,850	$11,494,293	$6,547,652	$11,919,805
Japan (including Formosa)	87,003,716	284,958,284	47,781,710	194,929,152	134,785,417	479,887,436
Macao	4,808,592	5,111,997	3,610,284	5,401,565	8,418,876	10,513,562
Mexico and Central America	5	55	43,082	56	43,087	111
Netherlands	1,037,997	1,324	6,336,807	41	7,374,804	1,365
Norway	253,393	10	1,973	111	255,366	121
Philippine Islands	1,015,219	3,809,874	555,967	2,568,800	1,571,186	6,378,674
Portugal	855	....	13,446	....	14,301	....
Russia:						
European ports	214,080	15,192	3,636,052	99	3,850,083	15,291
Land frontier	8,936,224	1,710,888	2,256,857	2,353,022	11,193,081	4,063,910
Amur ports	375,457	316,155	5,809,447	1,900,720	6,184,904	2,216,875
Pacific ports	6,623,754	5,579,458	21,045,372	13,167,931	27,669,126	18,747,389
Siam	38,088	471,664	1,478,337	2,352,632	1,516,425	2,824,296
Singapore, Straits Settlements, etc	6,513,918	12,325,532	5,505,926	7,635,823	12,019,844	19,961,355
South Africa (including Mauritius)	7	8,905	45,734	140,605	45,741	149,510
South America	126	18	48,195	241,689	48,321	241,707
Spain	2,468	3,114	277,691	22,012	280,159	25,126
Sweden	1,123,381	11,773	166,688	....	1,290,069	11,773
Switzerland	42,307	16,300	34,773	44	77,080	16,344
Turkey, Persia, Egypt, Aden, etc	102,196	453,413	2,695,006	3,636,089	2,797,202	4,089,502
United Kingdom	70,648,078	59,519,120	11,916,535	30,140,655	82,564,613	89,659,775
United States	25,826,427	70,012,450	27,447,069	92,021,107	53,273,496	162,033,557
Total	427,405,724	689,129,057	294,009,743	579,658,456	721,415,467	1,268,787,513
Less reexports to foreign countries	11,757,220	27,141,610	....	....	11,757,220	27,141,610
Net total	415,648,504	661,987,447	294,009,743	579,658,456	709,658,247	1,241,645,903

The following table shows the value of the trade with each country during 1904:

Countries.	1904		
	Imports.	Exports.	Total.
Australia, New Zealand, etc	$345,409	$152,366	$497,775
British America	1,509,197	371,030	1,880,227
British India	22,489,359	1,665,973	24,155,332
Cochin-China, Tongking, and Annam	1,224,816	2,061,695	3,286,511
Continent of Europe, except Russia	16,412,027	31,069,756	47,481,783
Hongkong	98,477,337	60,626,896	159,104,233
Japan (including Formosa)	35,014,511	26,514,827	61,529,338
Java and Sumatra	3,607,067	271,972	3,879,039
Korea	613,765	970,705	1,584,470
Macao	2,020,426	3,531,001	5,551,427
Philippine Islands	541,193	213,175	754,368
Russia via Odessa and Batum	3,081,120	1,962,958	5,044,078
Russia and Siberia via Kiakhta and Dalny	....	1,537,784	1,537,784
Russian Manchuria	37,178	28,598	65,776
Siam	180,265	906,013	1,086,278
Singapore and Straits Settlements	2,835,219	2,559,671	5,394,890
South Africa, including Mauritius	1,566	68,599	70,165
South America	....	18,171	18,171
Turkey in Asia, Persia, Egypt, Algiers, Aden, etc	797,392	3,064,673	3,862,065
United Kingdom	39,940,227	10,658,434	50,598,661
United States	20,368,300	18,907,407	39,275,707
Total imports	249,496,374	....	....
Less reexports to foreign countries	9,342,070	....	....
Total foreign countries {net imports	240,154,304	....	407,316,008
{exports	....	167,161,704	

Leaving out of consideration the merchandise passing through Hongkong (for which the country of origin can not be ascertained), a comparison of the two preceding tables shows that, between 1904 (a decade before the war) and 1918, direct British sales to China increased 49 per cent, American sales increased 244 per cent, and Japanese sales increased 714 per cent.

STATISTICS OF IMPORTS.

The following table shows, by quantity and value, the net imports from foreign countries into China during the years 1913 and 1918; the figures are from the official reports of the Chinese Maritime Customs:

Imports.	1913		1918	
	Quantity.	Value.	Quantity.	Value.
COTTON GOODS.				
Shirtings, gray, plain:				
English .... pieces..	4,109,011	$9,616,987	699,568	$4,196,671
Japanese .... do....	184,218	540,392	949,676	5,126,119
Other kinds .... do....	46,288	122,734	....	....
Sheetings, gray, plain:				
American .... do....	1,668,716	4,451,851	89,900	522,999
English .... do....	133,883	406,805	8,902	65,574
Japanese .... do....	3,397,362	6,909,359	2,227,102	12,718,076
Other kinds .... do....	9,080	24,204	....	....
Shirtings, white:				
Plain—				
English .... do....	4,537,900	13,986,335	1,544,075	11,086,261
Other kinds .... do....			635,655	4,450,748
Figured .... do....	....	....	113,063	716,698
Irishes .... do....	....	....	18,540	157,278
Figured, brocaded, striped, and spotted .... pieces..	70,096	249,083	....	....
Drills:				
American .... do....	525,291	1,539,621	....	....
English .... do....	85,708	286,125	18,327	139,098
Japanese .... do....	1,677,111	4,600,251	929,522	5,184,034
Other kinds .... do....	3,317	11,851	....	....
Jeans:				
American .... do....	41,201	132,359	10,254	55,144
English .... do....	1,554,688	3,776,825	116,512	756,367
Japanese .... do....	86,454	219,694	1,964,052	0,664,909
Other kinds .... do....	38,525	84,859	192	820
T cloths:				
32 inches—				
English .... do....	1,167,640	2,340,625	113,475	400,720
Japanese .... do....	370,192	445,222	934,736	3,067,420
Other kinds .... do....	39,990	55,699	2,078	7,536
36 inches—				
English .... do....	116,596	247,577	23,643	98,364
Other kinds .... do....	1,686	4,295	56,332	236,783
Bleached, 32 inches, 40 yards .... do....	....	....	103,684	539,850
Cambrics, lawns, and muslins, white, dyed, or printed:				
12 yards .... pieces..	331,856	238,948	170,673	242,445
30 yards .... do....			14,031	82,136
40 yards .... do....			110,290	750,315
Lenos and balzarines, white, dyed, or printed .... pieces..	124,583	191,817	52,113	202,371
Fancy muslins .... yards..	....	....	95,936	20,489
Art muslins and cretonnes, unenumerated .... yards..	....	....	298,903	71,683
Plain cotton prints .... pieces..	....	....	839,469	4,076,276
Chintzes and plain cotton drills .... do....	1,131,920	2,084,899	....	....
Printed drills, furnitures, and twills .... do....	82,590	120,017	4,043	25,243
Printed crape .... do....	....	....	9,623	45,610
Printed satteens, reps, etc .... do....	148,103	390,812	58,618	413,682
Printed "T" cloths .... do....	50,948	78,415	....	....
Turkey-red cottons and dyed T cloths ... do....	985,988	1,848,237	542,156	2,151,401
Dyed cottons, plain:				
Fast black—				
Italians .... do....	....	....	682,737	5,802,808
Venetians .... do....	....	....	238,484	3,003,735
Lastings .... do....	....	....	73,390	585,135
Colored—				
Italians .... do....	....	....	323,244	2,290,529
Venetians .... do....	....	....	204,842	1,690,774
Poplins .... do....	....	....	93,317	1,009,481
Lastings .... do....	....	....	597,362	4,541,176

Imports.	1913		1918	
	Quantity.	Value.	Quantity.	Value.
COTTON GOODS—continued.				
Dyed cottons, figured:				
Italians...pieces			96,878	$689,321
Venetians...do			26,340	291,297
Poplins...do			480,665	5,706,171
Lastings...do			146,260	1,140,505
Cotton italians, venetians, crêpe, and lastings, plain, fast black...pieces	1,745,901	$6,865,147		
Cotton italians, venetians, and crêpe, plain, colored, and lastings, plain...pieces	1,021,779	3,393,171		
Cotton italians, venetians, crêpe, and lastings, figured...pieces	905,446	3,210,350		
Shirtings:				
Dyed, plain...do	107,988	345,477	69,809	523,590
Hongkong-dyed, plain...do	120,723	265,146	72,311	240,623
Dyed, figured, brocaded, spotted...do	33,477	117,940		
Spanish stripes, 64 inches...do	47,161	140,930	22,796	191,571
Flannelettes:				
Plain, dyed, or printed...do			374,192	2,166,515
Yarn-dyed...do			48,345	219,607
Yarn-dyed, Japanese...do			92,413	434,128
Cotton flannels:				
Plain, dyed, and printed...do	568,541	1,436,812		
Plain, dyed, and printed, Japanese...do	112,271	268,150		
Striped...do	146,141	295,736		
Striped, Japanese...do	82,077	194,455		
Fancy woven cottons...yards	5,705,911	595,899		
Cottons, yarn-dyed...do			8,508,374	1,850,159
Crimps and crepons...do			2,045,912	463,355
Japanese cotton crêpe...do	309,358	23,911	72,383	1,086
Japanese cotton cloth...do	13,312,560	668,726	83,872,769	7,386,541
Chinese cotton cloth (nankeens)...pounds			972,931	502,115
Velvets and velveteens...yards	6,574,036	1,385,462	3,542,250	1,734,949
Blankets...pieces	1,104,924	459,890	538,484	583,090
Handkerchiefs...dozens	1,203,028	313,176	448,073	329,859
Handkerchiefs, Japanese...do	81,656	14,800	571,881	296,700
Towels...do	1,634,068	564,596	91,315	94,793
Towels, Japanese...do	546,528	133,708	1,464,282	1,233,754
Cotton goods, unenumerated...yards	77,436,971	4,454,796	4,596,573	1,114,787
Cotton yarn:				
English...pounds	683,733	159,654		
Hongkong...do	1,290,933	168,167	60,133	22,822
Indian...do	177,408,933	26,533,665	48,128,280	19,560,471
Japanese...do	173,456,133	23,729,604	99,460,951	42,183,149
Other kinds...do	5,208,667	1,211,715	965,998	354,972
Gassed, mercerized, or dyed...do			2,268,394	1,762,706
Wooloa or berlinette...do	3,733	2,041		
Cotton thread:				
In balls...do	551,600	254,187	637,998	543,608
On spools...gross	639,139	820,279	488,821	1,870,578
				180,781,863
Less excess of reexports over imports				185,019
Total cotton goods		132,983,468		✓180,596,844
WOOL AND COTTON UNIONS.				
Alpacas, lusters, and orleans...yards	746,556	142,086	765,974	426,214
Blankets and rugs...pounds			164,778	70,900
Coatings and suitings...yards			899,027	1,257,216
Union and poncho cloth...do	2,398,974	836,545	138,732	146,723
Union italian cloth...pieces	1,479	10,372		
Union italian cloth...yards			97,990	99,842
Union shirtings...do			144,016	86,877
Woolen and cotton flannel...do	131,158	57,182		
Wool and cotton unions, unenumerated...do	3,549,236	1,477,267	349,772	435,258
Total wool and cotton unions		2,523,452		2,523,030
WOOLEN GOODS.				
Blankets and rugs...pounds	1,619,557	447,533	175,373	254,109
Broadcloth, and medium, habit, and Russian cloth...yards	352,131	367,903	1,306	8,636
Camlets and bunting...pieces	18,091	173,842	6,148	169,691
Coatings and suitings...yards			712,293	1,802,999
Flannel...do	79,430	26,111	23,919	24,554
Lastings...pieces	32,168	287,722	3,626	120,864
Long ells...do	48,732	212,809	3,413	54,153

Imports.	1913		1918	
	Quantity.	Value.	Quantity.	Value.
WOOLEN GOODS—continued.				
Spanish stripes.....yards..	240,919	$109,130	11,042	$14,051
Woolen goods, unenumerated.....do....	1,079,282	769,928	186,398	394,252
Woolen and worsted yarn and cord...pounds..	1,952,800	1,162,018	459,599	975,886
Total woolen goods.....		3,556,996		3,819,185
MISCELLANEOUS PIECE GOODS.				
Canvas and cotton duck.....yards..	3,027,757	585,386	1,787,567	650,237
Gunny and hessian cloth.....do....	3,989,858	245,583	4,454,568	668,704
Linen goods and mixtures.....do....	186,864	49,841	208,182	92,469
Plushes and velvets.....pounds..			57,450	203,358
Plushes.....do....	93,597	119,617		
Silk piece goods.....do....	182,819	803,189	150,578	1,260,308
Silk piece goods mixtures.....do....	264,493	467,034	428,349	1,264,332
Silk piece goods, artificial.....yards..			1,251,468	579,704
Silk stripe cotton cloth, Japanese.....pounds..	7,887	6,420		
Imitation fur cloth, silk, wool, or cotton.yards..			268,285	792,480
Upholstery fabrics.....do....			55,370	88,035
Miscellaneous piece goods, unenumerated.....	1,436,756	227,616		409,797
Total miscellaneous piece goods.....		2,504,686		6,009,424
METALS AND MINERALS.				
Aluminum.....pounds..	18,133	3,799	20,933	14,729
Aluminum, manufactured.....do....	114,267	47,166	32,000	47,664
Brass and yellow metal:				
Bars, rods, sheets, plates, and nails..do....	2,331,333	359,495		
Bars, sheets, wire, etc.....do....			2,554,260	906,453
Wire.....do....	435,733	62,998		
Unenumerated.....	687,200	149,936		123,246
Copper:				
Bars, rods, sheets, plates, nails, and wire.....pounds..	1,862,400	326,216	1,384,263	492,976
Ingots and slabs.....do....	26,764,800	4,468,421	16,187,693	5,097,598
Unenumerated.....	550,409	80,237		315,343
Iron and mild steel, new:				
Anchors, anvils, castings, chains, and forgings.....pounds..	2,140,800	102,572	1,821,062	243,718
Angles and tees.....do....			11,971,970	873,457
Bars.....do....	79,047,200	1,348,669	51,774,271	3,739,522
Cobbles and wire shorts.....do....	45,450,133	617,082	13,013,167	583,088
Hoops.....do....	11,889,467	259,020	9,767,176	768,824
Joists.....do....			2,402,261	227,611
Nail-rod.....do....	16,446,000	238,130	677,065	48,074
Nails and rivets.....do....	43,909,333	1,050,377	26,507,134	2,114,502
Pig and kentledge.....do....	17,455,733	164,031	14,311,831	791,643
Pipes and tubes.....do....	8,514,800	270,517	38,022,038	3,444,921
Plate cuttings.....do....	47,977,200	555,694	5,961,185	379,472
Rails.....do....	39,047,333	653,225	44,001,757	2,341,294
Screws.....do....			937,064	268,101
Sheets and plates.....do....	47,703,200	912,703	30,874,056	3,619,097
Wire.....do....	8,131,333	205,953	2,138,261	182,196
Unenumerated.....do....	15,208,800	479,834	8,875,014	798,605
Iron and mild steel, old.....do....	85,291,600	885,088	16,987,691	560,595
Iron, galvanized:				
Sheets.....do....	30,086,133	1,027,958	9,298,910	1,297,336
Wire.....do....	8,791,867	240,628	10,745,706	1,102,099
Iron and steel manufactures, n. e. s.....do....	16,941,467	1,065,527	2,117,728	274,134
Lead:				
In pigs and bars.....do....	14,349,333	536,074	9,604,509	977,784
Tea and sheet.....do....	486,667	22,280	917,908	89,046
Other manufactures.....do....	942,000	38,235	1,170,930	156,099
Other manufactures.....value..				74
Nickel, manufactured and unmanufactured.....pounds..	240,933	87,688	145,733	88,036
Quicksilver.....do....	87,200	47,751	15,600	36,318
Steel:				
Bamboo, bars, hoops, sheets, and plates.....pounds..	18,514,667	561,068	25,745,002	3,094,833
Cast, wire, and wire rope.....do....	1,445,467	116,404	3,420,125	738,029
Tin:				
In slabs.....do....	7,037,467	1,694,207	3,422,791	2,072,272
Manufactured, not including tinfoil..do....	690,800	81,493	2,933	1,354
Tinned plates.....do....	48,448,800	1,777,990	42,098,028	5,039,511
White metal or German silver.....do....	547,733	148,687	32,133	24,195

Imports.	1913		1918	
	Quantity.	Value.	Quantity.	Value.
METALS AND MINERALS—continued.				
Zinc:				
Spelter...pounds..	1,168,133	$78,188	689,465	$75,531
Sheets and plates...do....	3,368,800	243,011	538,665	115,117
Other manufactures...do....	977,200	67,809	191,733	37,197
Metals and minerals, unclassed...do....	1,521,867	177,471	17,539,423	1,234,675
Metals and minerals, unclassed...value..				156,361
Ores:				
Copper...pounds..			573,732	2,733
Iron...do....	212,800	151	34,404,447	68,373
Lead...do....			33,200	332
Manganese...do....	30,133	978	616,398	33,567
Zinc...do....			10,124,775	120,534
Unclassed...do....	13,867	76	7,712,511	82,204
Total metals and minerals...		21,254,787		44,901,073
SUNDRIES.				
Animals, living:				
Cattle...number..	7,968	107,909	2,685	72,645
Goats...do....	770	1,381	3,067	11,708
Horses...do....	1,014	45,950	532	20,338
Pigs...do....	24,217	205,727	3,287	37,877
Poultry...do....	21,695	5,789	39,171	7,036
Sheep...do....			10	215
Other kinds...do....	523	5,292	2,218	3,337
Aniseed, star...pounds..	1,850,400	156,715	3,231,325	559,729
Arms and munitions:				
Of war...		4,912,333		16,812,978
Sporting...				49,691
Asbestos...		46,834		133,911
Bags, all kinds...number..	32,049,708	2,270,740	43,368,507	5,224,995
Beans, peas, etc...pounds..	49,245,467	740,087	55,122,262	1,447,795
Bedsteads:				
Iron...number..			9,364	131,736
Brass...do..			735	36,821
Belting, machine...		195,301		643,886
Betelnuts...pounds..	7,975,067	210,824	6,332,518	312,624
Bêche de mer...do....	5,101,867	849,845	5,511,053	2,005,857
Bird's-nests...do....	114,364	477,095	128,021	969,386
Biscuits...				138,153
Books, printed, and music, engraved or printed...		398,717		430,589
Borax, crude and refined...pounds..	653,467	31,830		
Bottles, empty (not including india-rubber bottles)...				332,039
Boxes, fancy...gross..	139,444	118,221	39,451	100,256
Braid:				
Llama...pounds..	337,600	266,053	13,200	28,972
Other kinds...		328,851		139,734
Bran, all kinds...pounds..	281,345,200	2,416,429	251,602,304	3,331,654
Bricks and tiles...pieces..	3,751,101	111,311	8,138,341	627,405
Building materials, n. e. s...				1,102,556
Butter (including ghee)...pounds..	1,635,467	421,472	1,824,129	606,023
Buttons, brass and fancy...gross..	1,439,665	382,035	1,151,015	358,722
Candles, all kinds...pounds..	6,717,733	422,665	8,350,779	1,262,126
Candle-making materials:				
Candle wick...do....			20,400	14,623
Stearine...do....			1,314,530	284,760
Unclassed...				1,298
Cardamoms...pounds..	979,867	143,582	1,234,930	367,579
Carpets and carpeting...		85,473		365,690
Casks, etc., empty...				1,270,719
Caviare...		16,757		130,140
Celluloid...				102,303
Cement...pounds..	82,402,533	443,393	114,975,713	1,137,907
Cereals:				
Barley...do....	682,267	21,740	630,398	29,722
Maize...do....	1,103,200	11,682	5,793,986	103,611
Oats...do....	3,407,600	60,238	7,600	87
Rice and paddy...do....	721,988,133	13,401,731	931,201,005	27,172,881
Rye...do....	156,800	2,831		
Wheat...do....	275,200	4,529	2,133	100
Other kinds...do....	1,729,200	72,546	2,349,194	148,645
Charcoal...do....	29,538,800	162,228	12,256,903	129,800
Charts, maps, pictures, and other products of the graphic arts...		29,462		89,428
Cheese...pounds..	389,333	80,024	310,399	160,245
Chemical products (not including match-making materials, medicines, and soda)...		426,313		1,431,790
Chinaware, coarse and fine (including crockery and earthenware)...		882,697		1,497,572

Imports.	1913		1918	
	Quantity.	Value.	Quantity.	Value.
SUNDRIES—continued.				
Cigarette-making materials (not including tobacco)				$1,534,977
Cigarettes .... thousands	6,209,037	$9,177,600	9,231,941	28,612,391
Cigars .... do	38,565	348,821	48,390	911,044
Cinnamon .... pounds	90,133	47,494	117,330	99,892
Clocks and watches .... number	549,180	679,649	347,744	1,034,881
Clothing, hats, etc. (not including hosiery, shoes and boots of leather, and haberdashery, but including leather gloves)				6,004,936
Clothing, hats, boots, shoes, and gloves (other than india rubber or leather)		4,739,397		
Cloves and spices .... pounds	1,053,467	68,767	249,599	40,494
Coal .... tons	1,690,892	6,867,733	1,075,057	15,024,020
Cocoa, crude .... pounds	5,467	2,931	450,286	92,392
Cocoa and chocolate, prepared .... do	132,692	43,079	456,851	288,609
Coffee .... do	350,844	59,226	6,351,365	1,072,289
Coke .... tons	5,597	52,259	4,154	104,172
Confectionery (not including cocoa and chocolate)		241,714		208,054
Cordage .... pounds	2,973,467	287,980	6,099,451	688,164
Corks				67,544
Cotton gins		77,751		111,355
Cotton, raw .... pounds	17,767,333	2,175,352	25,347,937	7,242,127
Cotton wadding .... do			1,023,064	243,526
Covers, bed and table		375,915		400,719
Crucibles				293,173
Cutlery and electroplated ware		194,328		
Dyes, colors, and paints:				
Aniline		3,937,927		897,096
Bark, mangrove .... pounds	14,363,333	127,285	14,674,363	237,140
Cinnabar .... do	228,533	94,912	150,400	286,617
Indigo—				
Artificial .... do	42,610,000	7,022,571	200,133	174,944
Vegetable .... do	1,682,667	41,509	8,277,713	750,836
Sapanwood .... do	3,185,467	37,611	5,075,454	129,393
Vermilion .... do	766,533	177,536	297,999	245,102
Dyes and colors, unclassed .... do	18,086,533	697,288	14,281,431	1,088,026
Paints and paint oil .... do	9,701,867	628,935	11,089,172	1,265,451
Eggs, game, and poultry .... number	3,469,003	23,516	2,378,071	23,829
Electrical materials and fittings		1,692,985		4,930,900
Emery and corundum (powder, cloth, and paper)		48,904		140,398
Enameled ware		837,180		1,320,093
Explosives for industrial purposes .... pounds	820,133	138,261	577,465	328,263
Fans:				
Palm leaf .... number	47,748,439	207,284	50,151,379	510,963
Other kinds .... do			5,886,383	247,837
Felt and felt sheathing		25,423		79,509
Fish and fishery products (not including bêche de mer, isinglass, and seaweed and agar-agar), pounds	196,438,400	9,458,440	192,766,585	14,992,105
Flour .... pounds	346,242,800	7,509,146	606,798	
Fodder .... do	123,867	1,004	2,976,126	14,032
Foodstuffs, unclassed				688,588
Fruits:				
Dried .... pounds	11,616,667	555,635	13,662,633	1,044,697
Fresh .... do	29,015,600	476,267	33,322,983	996,662
Furniture, and materials for making		424,768		1,338,981
Gas fittings				316,102
Gasoline, benzine, naphtha, petrol, etc. .... gallons	465,577	78,583	1,194,290	668,490
Ginseng .... pounds	446,421	1,202,410	465,661	4,140,489
Glass, window .... boxes	311,950	832,258	156,271	1,794,958
Glass and glassware		794,625		726,819
Gloves, leather .... pairs	58,815	18,545		
Glue .... pounds	1,942,533	197,504	2,205,728	516,429
Glycerine .... do				
Groundnuts .... do	44,568,267	1,036,898	93,527,900	4,142,070
Gums and wax (not including paraffin wax), pounds			3,973,723	514,139
Gums (myrrh, olibanum, etc) .... pounds	2,191,600	99,753		
Gypsum .... do			525,732	7,710
Haberdashery		811,495		1,196,554
Hair, animal, and feathers .... pounds	1,987,600	96,546		
Hair, feathers, and wool .... do			1,495,463	306,025
Hemp .... do	2,841,600	179,023	2,083,861	288,231
Hides, cow and buffalo .... do	2,295,867	280,380		
Hides and skins, undressed .... do			3,648,124	1,046,003
Honey .... do	267,200	28,326	208,799	33,374
Hops .... do	41,600	16,097	58,400	17,813

Imports.	1913		1918	
	Quantity.	Value.	Quantity.	Value.
SUNDRIES—continued.				
Horns:				
Deer...pounds..	68,400	$78,957		$442,193
Rhinoceros...do....	166,933	49,135	1,676	105,450
Hosiery...dozens..	2,109,301	1,395,089	1,913,001	2,233,440
India-rubber and gutta-percha...pounds..	34,800	11,801	41,733	23,607
India-rubber and gutta-percha, manufactures of all kinds (including boots and shoes)...		262,826		877,868
Instruments, musical:				
Automatic...		155,863		157,729
Pianos, etc...		133,291		150,799
Instruments and apparatus, scientific (including medical, optical, and surgical)...		539,114		387,434
Isinglass...pounds..	720,667	195,357	332,399	214,170
Ivory...do....	31,557	60,251	89,580	222,103
Jadestone...do....	517,867	129,513	564,665	308,598
Jewelry, real and imitation (including goldware and silverware)...		102,542		298,130
Lace and trimmings...		564,264		610,924
Lamps and lampware...		1,000,595		811,630
Leather...pounds..	14,572,667	5,233,433	16,328,093	11,205,367
Manufactures of (not including gloves, machine belting, and boots and shoes)...		277,094		260,975
Imitation, and oilcloth[a]...		143,873		107,957
Liquid fuel...tons..	12,065	91,201	18,204	403,502
Looking-glasses and mirrors...		274,623		541,560
Lungngans...pounds..	1,392,933	69,251	5,313,053	570,246
Macaroni and vermicelli...do....	13,305,467	578,945	9,574,776	1,130,272
Machine tools...		36,781		395,364
Machinery:				
Agricultural...		82,158		195,876
Propelling (as boilers, turbines, etc.)...		468,170		770,705
For the textile industries (as carding, color-printing, weaving, spinning, etc., except cotton gins)...		610,074		1,968,538
For brewing, distilling, sugar refining, etc...		35,370		23,087
Other kinds, and parts of machinery...		3,940,228		5,577,131
Machines, embroidering, knitting, and sewing..		644,638		336,826
Malt...pounds..	1,029,467	39,549	457,066	47,678
Manures...do....	121,140,933	691,439	112,537,185	897,328
Margarine and artificial butter...do....	77,733	9,981	9,600	2,473
Matches...gross..	28,448,155	4,622,704	13,340,821	5,494,274
Match-making materials...		1,158,541		
Match-making materials (not including paraffin wax)...				1,962,104
Mats, all kinds (not including matting).pieces..	6,468,232	366,092	4,292,911	667,554
Meats, prepared or preserved...				463,731
Meats, prepared or preserved (including lard and preserved game and poultry)...		239,482		
Medicines (including cocaine and morphia)...				6,114,717
Medicines (including worm tablets)...		2,935,591		
Milk, condensed, in tins...dozens..	483,720	570,135	352,178	820,477
Molasses...pounds..			10,459,574	153,892
Mushrooms...do....	2,158,667	483,099	2,475,994	1,049,785
Needles...thousands..	4,929,710	761,932	2,512,412	2,954,481
Oil, kerosene:				
American...American gallons..	112,459,925	10,460,946	48,249,297	15,296,400
Borneo...do....	23,603,943	2,510,457	11,700,691	3,265,155
Japanese...do....	34,265	3,836	1,947,970	658,296
Russian...do....	5,970,271	858,246		
Sumatra...do....	41,915,648	4,685,189	48,527,206	14,561,219
Other kinds...do....			17,865	8,525
Oil cake...pounds..	42,933	617		
Oils:				
Lubricating...American gallons..	2,449,586	516,472		
Lubricating...gallons..			5,360,028	2,180,197
Vegetable...do....			862,067	830,384
Vegetable of all kinds (not including essential oils)...	1,590,876	1,266,405		
Oil tanks and fittings...				10,218
Opium:				
Malwa...pounds..	1,386,253	17,312,417		
Patna...do....	832,317	10,208,035		
Benares...do....	190,199	2,288,550		
Other kinds...do....	9,576	96,774	44,415	620,467
Paper, including cardboard...do....	129,512,933	4,462,130	72,202,619	7,620,056
Paper, including cardboard...value..		764,257		1,021,516
Pearls, real...				20,095
Pepper, black and white...pounds..	6,931,333	722,755	6,381,051	1,205,807

[a] This class for year 1918 does not include oilcloth for flooring.

Imports.	1913		1918	
	Quantity.	Value.	Quantity.	Value.
SUNDRIES—continued.				
Perfumery and cosmetics		$325,392		$1,326,371
Photographic materials		229,437		476,012
Plants and flowers, living		21,733		54,816
Potatoes … pounds	2,063,333	18,122		
Printing and lithographic materials				465,130
Printing and lithographic materials (not including machinery)		291,816		
Railway materials:				
Sleepers … number			1,015,122	1,350,218
Not otherwise classified				1,693,764
Rattans, whole, split, and peeled … pounds	17,992,267	592,413	12,634,235	749,007
Safes and strong-room doors		85,117		167,954
Saltpeter … pounds	7,991,600	302,612	330,799	49,205
Sandalwood … do	11,168,800	585,227	16,135,560	2,118,998
Scales and balances		59,316		107,629
Seaweed and agar-agar … pounds	84,797,067	1,249,513	106,173,201	2,655,706
Seeds, all kinds … do	6,938,533	350,975	7,060,782	728,504
Ships and boats, and materials for (not included in metals or timber)		71,823		30,840
Shoes and boots, leather … pairs	292,632	340,799	806,246	3,020,615
Shooks for making casks				1,332,916
Silk and cotton ribbons		376,523		75,783
Silk and silk products				153,143
Skins (furs) … pieces	592,195	211,334	1,998,566	1,161,527
Soap		1,957,008		
Soap, and materials for making				3,644,528
Soda … pounds	65,100,667	822,173	29,585,393	1,924,897
Soy … do			5,580,519	260,372
Spirits of wine … gallons			940,652	533,301
Starch … pounds	337,200	10,338	459,732	30,800
Stationery		941,237		1,383,990
Stone (marble, granite, etc.)				174,791
Stores, household		2,996,431		2,286,124
Stoves and grates		226,801		100,332
Sugar:				
Brown … pounds	303,670,067	6,733,659	314,495,080	11,587,249
White … do	257,742,267	7,752,079	258,763,620	14,436,566
Refined … do	350,387,600	10,637,942	550,040,358	42,149,125
Candy … do	36,421,467	1,343,737	41,871,095	3,285,637
Cane … do	20,434,533	114,468	20,485,815	205,946
Sulphur … do	4,063,600	55,021	5,122,121	145,546
Sulphuric acid … do	2,848,533	46,524		
Tea:				
British India and Ceylon … do	19,572,667	2,868,284	1,877,729	300,449
Japan (Formosa) … do	1,858,133	80,756	1,132,397	152,495
Java … do	4,466,800	541,118		
Other kinds … do			3,338,392	656,445
Telegraph and telephone materials		524,480		565,288
Thread, gold and silver, imitation … pounds	86,400	88,565	22,933	90,592
Timber:				
Hardwood … cubic feet	2,660,682	782,936	3,869,121	2,925,198
Softwood … square feet	159,602,884	2,829,305	103,687,730	4,202,727
Tinfoil and other foils … pounds	706,000	285,433	1,355,863	480,650
Tobacco … do	215,448	2,604,396	24,145,406	6,701,163
Tobacco … value				38,019
Tobacconists' sundries		182,320		282,313
Toilet requisites		653,812		754,914
Tools, hand		199,511		733,585
Toys and games		217,917		850,191
Trunks and suitcases				387,888
Turpentine … gallons	34,328	16,932		
Umbrellas:				
European … number	776,331	352,747		
European and American … do			287,066	273,962
Japanese … do	2,265,119	709,989	2,430,788	1,285,849
Other kinds … do			28,543	20,951
Varnish … pounds	1,087,133	141,019	555,065	106,037
Vegetables, dried and fresh (including potatoes) … pounds			13,037,701	371,926
Vegetables, dried and fresh (not including potatoes, beans, and peas) … pounds	12,152,400	284,935		
Vehicles:				
Locomotives and tenders		560,330		850,324
Railway carriages and wagons (including tramcars)		870,297		2,388,125
Traction and road engines		2,184		486
Motor cars		353,698		1,518,666
Motorcycles		9,416		39,277
Velocipedes (bicycles, etc.)		76,950		153,928
Other kinds		710,335		432,501

Imports.	1913		1918	
	Quantity.	Value.	Quantity.	Value.
SUNDRIES—continued.				
Waters, aerated and mineral		$144,698		$196,612
Wax, paraffin .... pounds			14,693,430	1,548,793
Wines, beer, spirits, etc.:				
Beer and porter		527,925		1,341,214
Spirits		811,200		
Spirits (not including spirits of wine)				1,600,753
Wines		884,133		1,706,114
Other beverages		39,088		126,845
Wood pulp .... pounds	4,883,467	80,907	4,963,854	269,518
Woods of all kinds not otherwise enumerated				1,202,146
Woods of all kinds (not including sandalwood, timber, and dyewoods)		843,297		
Woodware				250,652
Woodware (not including furniture and machinery)		99,735		
Postal parcels not otherwise classified		1,759,778		3,990,802
Sundries, unenumerated		11,502,606		4,515,225
		252,845,730		423,726,149
Less excess of reexports over imports		20,615		208,725
Total sundries		252,825,115		423,517,424
Grand total		415,648,504		661,987,447

The following table shows the imports during 1904:

Imports.	1904	
	Qantity.	Value.
COTTON GOODS.		
Shirtings, gray, plain:		
American ...... pieces	231,888	$469,341
Dutch .... do	2,000	3,740
English .... do	3,538,035	6,788,679
Indian .... do	7,405	15,639
Japanese .... do	6,401	10,484
Sheetings, gray, plain:		
American .... do	2,003,791	4,677,854
Dutch .... do	4,000	9,622
English .... do	547,437	1,286,828
Indian .... do	51,318	100,190
Japanese .... do	214,502	420,652
Shirtings, white:		
Plain .... do	2,767,971	7,555,393
Figured, brocaded, striped, and spotted .... pieces	7,094	20,256
Drills:		
American .... do	1,309,718	3,438,092
Dutch .... do	9,610	22,772
English .... do	129,949	290,011
Indian .... do	65,529	154,222
Japanese .... do	159,999	400,891
Jeans:		
American .... do	158,151	337,887
Dutch .... do	10,638	18,238
English .... do	360,682	740,539
T cloths:		
32 inches—		
Dutch ...... do	3,401	6,028
English ...... do	534,101	761,674
Indian ...... do	57,851	60,746
Japanese .... do	225,534	223,484
36 inches—		
English ...... do	230,825	394,112
Indian ...... do	1,358	2,560
Japanese .... do	876	804
Cambrics, lawns, and muslins, white, dyed, and printed .... pieces	203,598	155,351

Imports.	1904	
	Quantity.	Value.
COTTON GOODS—contd.		
Lenos and balzarines, white, dyed, and printed .... pieces	82,363	$139,668
Chintzes and plain cotton prints .... pieces	377,520	633,121
Printed drills, furnitures, and twills .... pieces	95,458	134,429
Printed sateens, reps, etc., pieces	80,896	366,215
Printed T cloths ... pieces	191,787	258,476
Turkey-red and dyed T cloths .... pieces	525,565	881,603
Italians, plain, fast black, pieces	1,297,461	5,078,679
Lastings:		
Plain .... pieces	344,186	1,285,704
Figured .... do	1,051,364	3,148,146
Shirtings:		
Dyed, plain ..... do	76,193	211,923
Hongkong-dyed, plain, pieces	158,421	328,253
Dyed, figured, brocaded, and spotted, pieces	75,166	208,428
Spanish stripes, 64 inches, pieces	44,091	133,439
Flannel:		
Plain, dyed, and printed ...... pieces	529,989	1,384,179
Same, Japanese .. do	131,675	292,946
Striped .... do	56,204	115,712
Same, Japanese .. do	55,396	89,217
Fancy woven cottons, yards	1,622,689	117,677
Japanese cotton cloth, yards	1,477,254	64,878
Japanese cotton crêpe, yards	1,262,975	69,038
Velvets, 22 inches .. yards	2,897,594	420,467

Imports.	1904	
	Quantity.	Value.
COTTON GOODS—contd.		
Velveteens:		
18 inches and 26 inches, yards	309,105	$40,314
Embossed, and dyed velvet cords..yards..	627,741	153,776
Blankets..........pieces..	522,694	228,642
Handkerchiefs....dozens..	582,086	189,862
Handkerchiefs, Japanese, dozens	29,265	8,744
Towels:		
Honeycomb and huckaback.......dozens..	377,955	108,243
Same, Japanese..do....	158,635	61,917
Other kinds.....do....	603,595	195,915
Cotton goods, unclassed....	....	352,571
Cotton yarn:		
English......pounds..	1,095,733	253,839
Hongkong......do....	647,333	82,522
Indian..........do....	217,171,067	29,599,482
Japanese........do....	85,163,967	11,149,426
Other..........do....	39,067	18,100
Woolen or berlinette.do....	16,667	7,714
Cotton thread:		
In balls.........do....	41,200	14,850
On spools.......gross..	256,243	415,934
Total cotton goods...	....	$66,610,147
WOOLEN AND COTTON MIXTURES.		
Alpacas, lusters, and orleans.............yards..	657,406	114,885
Union and poncho cloth, yards	343,084	144,721
Union Italian cloth.pieces.	40,987	282,009
Woolen and cotton flannel..............yards..	91,482	19,792
Woolen and cotton mixtures, unclassed..yards..	511,098	159.545
Total woolen and cotton mixtures...	....	720,952
WOOLEN GOODS.		
Blankets and rugs, pounds	572,654	193,185
Bunting...........pieces..	1,242	4,252
Camlets:		
Dutch..........do....	4	45
English.........do....	55,553	448,396
Cloth, broad, medium, habit, and Russian, yards	390,313	398,532
Flannel...........yards..	117,745	28,223
Lastings...........pieces..	34,849	227,007
Long ells...........do....	132,823	513,933
Spanish stripes.....yards..	757,732	333,147
Woolen goods, unclassed, yards	448,274	219,252
Woolen and worsted yarn and cord.......pounds..	982,400	538,629
Total woolen goods..	....	2,904,601
MISCELLANEOUS PIECE GOODS.		
Canvas.............yards..	449,521	78,529
Gunny cloth........do....	2,239,842	94,974
Linen goods and mixtures, yards	94,866	12,473
Plushes..........pounds..	378,288	434,241
Silk piece goods and mixtures...........pounds..	263,197	692,096
Silk-stripe cotton cloth, Japanese......pounds..	43,183	19,511
Miscellaneous piece goods, unclassed	....	35,459
Total miscellaneous piece goods.......	....	1,367,283

Imports.	1904	
	Quantity.	Value.
METALS.		
Brass and yellow metal:		
Bars, rods, sheets, plates, and nails, pounds	2,438,400	$340,461
Wire.........pounds..	398,533	53,368
Unclassed.......do....	1,447,200	124,167
Copper:		
Bars, rods, sheets, plates and nails, pounds	4,137,733	732,199
Ingots, slabs, and ore, pounds	32,383,600	4,918,586
Wire.........pounds..	199,867	36,739
Unclassed.......do....	2,082,400	424,832
Iron and mild steel, new:		
Anchors, anvils, chains, and forgings, pounds	1,395,600	46,306
Bars.........pounds..	21,868,100	342,499
Castings, rough..do....	32,133	750
Cobbles and wire shorts, pounds......	16,281,467	215,877
Hoops..........do....	5,429,067	112,391
Nail rod.........do....	32,125,800	523,221
Nails and rivets.do....	14,526,133	324,916
Pig and kentledge, pounds	10,613,467	86,505
Pipes and tubes, pounds	5,984,400	142,553
Plate cuttings, pounds	43,247,467	506,987
Rails.........pounds..	518,533	23,733
Sheets and plates, pounds	13,543,600	217,176
Wire.........pounds..	5,293,600	141,265
Unclassed.......do....	3,413,467	116,112
Iron and mild steel, old, pounds	91,371,067	907,234
Iron, galvanized:		
Sheets........pounds..	5,818,800	173,689
Wire...........do....	1,942,400	55,355
Lead:		
In pigs and bars.do....	21,826,933	652,689
Tea and sheet...do....	369,600	12,787
Nickel..............do....	253,733	98,201
Quicksilver.........do....	175,600	97,047
Spelter.............do....	1,910,133	90,483
Steel:		
Bamboo, bars, hoops, sheets, and plates, pounds	7,471,733	266,706
Tool, cast, wire, and wire rope...pounds..	938,000	90,908
Tin, in slabs........do....	8,526,667	2,041,397
Tinned plates.......do....	18,526,000	596,648
White metal or German silver..........pounds..	616,533	157,493
Zinc, sheets and plates, pounds	878,267	53,462
Metals, unclassed, pounds..	1,386,667	97,131
Total metals.........	....	14,821,873
SUNDRIES.		
Bags, all kinds.....pieces..	11,850,327	671,239
Betel nuts........pounds..	7,743,067	206,921
Bêche de mer.......do....	4,746,533	804,585
Birds' nests.........do....	143,747	527,822
Books and charts..........	....	184,479
Boxes, fancy........gross..	116,662	118,314
Braid, llama..............	....	416,525
Bran, rice.........pounds..	308,221,067	1,613,537
Building materials and fittings	....	175,610
Butter and cheese.........	....	237,931
Buttons, brass and fancy, gross	1,367,848	400,519
Candles..................	....	392,768
Carpets and carpeting.....	....	43,137

Imports.	1904	
	Quantity.	Value.
SUNDRIES—continued.		
Carriages, bicycles, etc., and materials		$126,771
Cement ..... pounds	34,959,600	191,565
Charcoal ..... do	18,557,733	97,139
Chemical products (not including matchmaking materials, medicines, and soda)		159,404
Chinaware, fine and coarse (including crockery and earthenware)		208,377
Cigarettes		2,022,964
Cigars		266,276
Clocks and watches, number	301,469	457,069
Clothing, hats, etc. (not including boots and shoes)		479,231
Cloves and spices ..... pounds	2,265,867	263,827
Coal ..... tons	1,250,619	4,901,575
Coke ..... do	10,084	96,576
Cordage ..... pounds	705,067	78,633
Cotton gins, and parts		152,216
Cotton, raw ..... pounds	8,007,600	707,122
Cutlery and electroplated ware		67,273
Dyes, colors, and paints:		
Bark, mangrove, pounds	24,269,467	193,412
Cinnabar ..... pounds	368,133	150,182
Dyes, aniline		1,301,422
Indigo—		
Artificial ..... pounds	2,509,200	699,279
Vegetable ..... do	10,459,600	331,118
Sapanwood ..... do	6,162,267	76,576
Vermilion ..... do	394,667	174,136
Dyes, unclassed ..... do	8,457,067	235,722
Colors ..... do	1,704,133	77,403
Paints and paint oil, pounds	22,160,400	371,870
Electrical materials and fittings		242,260
Elephants' teeth and tusks ..... pounds	79,600	139,625
Enameled ware		173,518
Fans, palm-leaf ..... number	35,236,657	157,622
Fish and fishery products (not including bêche de mer, isinglass, and seaweed) ..... pounds	58,192,800	3,846,647
Flour ..... do	125,059,467	2,506,568
Fruits, dried		180,240
Furniture, and materials for making		446,476
Ginseng ..... pounds	554,727	985,844
Glass, window ..... boxes	96,068	281,533
Glass and glassware		535,622
Glue ..... pounds	973,200	91,382
Groundnuts ..... do	21,045,200	478,899
Haberdashery		288,638
Hardware		367,910
Hemp ..... pounds	1,834,667	108,360
Hides, cow and buffalo, pounds		
Horns:		
Deer		26,346
Rhinoceros ..... pounds	5,067	194,747
Hosiery ..... dozen	293,720	225,495
Isinglass ..... pounds	903,600	249,921
Jadestone ..... do	485,200	197,004
Jewelry, real and imitation		87,575
Lace and trimmings		66,206
Lamps and lamp wire		336,999
Leather ..... pounds	1,832,267	575,325
Leather, manufactures of		271,654
Lungngans ..... pounds	811,067	48,062
Macaroni and vermicelli, pounds	60,067	260,065
Machinery and fittings		1,856,707
Matches ..... gross	22,854	20,932
Matches, Japan ..... gross	20,287,402	$3,310,760
Match-making material		226,921
Mats of all kinds ..... pieces	7,221,232	414,041
Medical and surgical appliances		90,356
Medicines		1,051,395
Milk, condensed, in tins, dozens	246,678	251,864
Morphia ..... ounces	128	198
Mushrooms ..... pounds	2,188,533	562,733
Needles ..... thousands	2,886,341	436,445
Oil:		
Engine ..... gallons	436,955	106,109
Kerosene—		
American ..... do	67,063,705	9,224,006
Borneo ..... do	343,620	34,828
Burma ..... do	949,375	100,334
Russian ..... do	32,618,352	3,864,090
Sumatra ..... do	55,916,183	6,256,556
Opium:		
Benares ..... pounds	1,281,733	4,301,063
Malwa ..... do	2,945,333	11,235,744
Patna ..... do	2,660,800	9,186,182
Other kinds ..... do	414,267	1,168,742
Paper ..... do	30,912,800	1,779,224
Pearls, real		49,930
Pepper, black and white, pounds	6,127,333	672,002
Perfumery		137,798
Photographic materials		85,294
Printing and lithographic materials		41,706
Railway plant and materials		4,220,428
Rattans ..... pounds	15,316,400	506,891
Rice ..... do	447,577,333	5,848,912
Saltpeter ..... do	8,931,867	360,718
Sandalwood ..... do	16,643,200	758,492
Seaweed and agar-agar pounds	67,728,533	1,142,546
Seeds, all kinds ..... pounds	4,148,133	147,529
Ships and boats, materials for, not entered under metals or timber		402,304
Shoes and boots ..... pairs	471,814	276,270
Silk and cotton ribbons		294,268
Skins (furs) ..... pieces	373,821	100,442
Soap		635,914
Soda ..... pounds	16,572,800	277,875
Stationery		397,536
Stores:		
Household		1,041,288
Marine and engineers'		198,395
Sugar:		
Brown ..... pounds	185,205,067	3,837,960
Candy ..... do	26,046,400	968,767
Refined ..... do	168,148,267	4,773,429
White ..... do	120,275,333	3,180,302
Sulphur ..... do	5,015,600	112,871
Tea:		
British India and Ceylon, pounds	1,553,200	157,823
Japan (Formosa), pounds	734,667	27,901
Java ..... pounds	36,533	3,825
Telegraph materials		199,605
Thread, gold and silver, imitation ..... pounds	72,267	102,970
Timber:		
Hardwood ..... cubic feet	1,861,723	697,295
Softwood ..... square feet	52,332,529	1,044,900
Tobacco ..... pounds	4,260,133	594,574
Tobacconists' sundries		211,128
Toilet requisites		113,12
Toys		76,365
Umbrellas:		
European ..... number	153,712	66,577
Japanese ..... do	1,375,465	399,361
Varnish ..... pounds	775,867	79,915

Imports.	1904	
	Quantity.	Value.
SUNDRIES—continued.		
Waters, aerated and mineral	....	$76,749
Wines, beer, spirits, etc.:		
Beer and porter	....	467,578
Spirits	....	351,858
Wines	....	630,665
Woods of all kinds (not including sandalwood, timber, and dyewoods)	....	491,155
Sundries, unenumerated	....	8,901,829
SUNDRIES—continued.		
Imports from foreign countries by junk in addition to those included above	....	$40,243
		133,735,625
Less excess of free exports over imports	....	6,177
Total sundries	....	133,729,448
Grand total	....	240,154,304

STATISTICS OF EXPORTS.

The following table shows, by quantity and value, the Chinese goods exported to foreign countries from China during the years 1913 and 1918:

Exports.	1913		1918	
	Quantity.	Value.	Quantity.	Value.
COTTON GOODS.				
Shirtings, gray .... pieces	....	....	15,547	$101,985
Sheetings .... do	....	....	28,212	239,551
Drills .... do	....	....	17,434	137,515
Nankeens .... pounds	6,407,466	$1,719,384	6,243,451	3,238,643
Cloth, native, fancy .... pieces	....	....	511,483	1,513,542
Cotton yarn .... pounds	....	....	3,699,324	1,193,593
METALS AND MINERALS.				
Antimony:				
Regulus .... pounds	28,720,800	687,096	31,706,054	2,526,674
Crude .... do			3,759,057	142,945
Ore .... do	9,589,867	109,343	1,058,531	26,019
Copper ingots and slabs .... do	....	....	5,961,318	994,543
Iron:				
Bars, billets, and nail rod .... do	2,623,733	80,499	8,097,313	231,623
Pans .... do			2,174,661	112,723
Plates and sheets .... do			3,310,525	96,382
Rails .... do			5,043,854	127,231
Manufactures, unclassed .... do			27,695,131	808,778
Pig and unmanufactured .... do	142,841,467	962,356	373,868,932	19,960,199
Ore .... do	604,021,333	444,503	834,806,180	1,621,998
Lead .... do	92,400	2,000	1,022,664	146,191
Lead ore .... do	8,962,667	95,447	2,065,728	58,645
Quicksilver .... do	4,667	2,624	646,798	868,338
Tin, in slabs .... do	18,491,733	7,958,424	19,442,218	13,133,817
Tin compound .... do	....	....	438,666	26,505
Zinc (spelter) .... do	2,002,267	70,539	283,866	33,150
Zinc ore .... do	21,048,000	80,557	365,199	3,932
Metals and minerals, unclassed .... do	6,270,000	268,093	161,548,929	4,227,329
Ores, unclassed .... do	18,602,400	38,622	91,619,238	9,337,294
SUNDRIES.				
Alum, white .... pounds	2,644,800	31,050	5,367,987	196,851
Animals, living:				
Cattle .... number	86,565	2,244,224	28,852	1,031,216
Goats .... do	10,195	16,914	4,996	17,653
Horses .... do	1,882	65,159	461	20,499
Pigs .... do	277,848	1,983,277	259,512	2,557,243
Poultry .... do	2,779,543	461,289	2,875,505	791,263
Sheep .... do	44,073	133,129	23,714	154,120
Other kinds (including asses and mules .... number	162	3,128	2,241	160,741
Aniseed, star .... pounds	1,469,200	172,715	3,143,325	351,108
Arms and munitions	....	....	....	10,707
Arsenic .... pounds	....	....	85,690	8,879
Bags, all kinds .... pieces	9,810,615	292,390	6,771,283	531,885

Exports.	1913		1918	
	Quantity.	Value.	Quantity.	Value.
SUNDRIES—continued.				
Bamboo and bamboo ware		$830,511		$864,703
Bamboo shoots pounds			879,998	56,417
Bananas do			7,381,982	75,970
Bean cake do	1,575,792, 400	18.197,871	2,182,241,744	35,650,215
Bean curd do	4.846,533	144.899	3,765,591	265,141
Beans:				
Black do	1,376,795,200	16,983.422	13,481,033	295,796
Green do			21,546,879	541,824
White do			63,360,375	1,542,042
Yellow do			819,479,313	17,106,454
Other kinds do			230,250,891	4,402,072
Beer				67,148
Betelnuts pounds			1,315,197	130,489
Bones do	74,288,933	434,580	76,984,874	860,336
Books, printed do	821,067	225.817	732,665	387,760
Bran do	136,986.133	847.963	163,199,459	1,903,077
Brass foil do			24,800	16,366
Brassware do			422,799	206,859
Bricks and tiles pieces	60,669,558	309,212	59,812,171	506,467
Bristles pounds	7.028,667	3,233.360	9,548,109	7,972,180
Buttons, brass do			85,200	24,879
Camphor do	247,600	94,298	765,598	510,692
Candles do			2,197,861	504,456
Canes (bamboo, etc.) number			2,376,451	27,523
Cardamoms pounds			11,467	3,920
Carpets pieces			17,769	438,958
Carriages and jinrikishas				3,433
Cassia lignea pounds	13,435,753	966,273	6,669,850	357,771
Cement do			67,078,632	503,361
Cereals:				
Barley do	35,434,800	304,799	4,653,722	57,031
Maize do	7,414,800	70,790	9,747,576	156,386
Millet and kaoliang (sorghum) do			122,871,426	2,858,143
Oats do	9,107,200	92,368	2,239,194	42,064
Rice and paddy do			4,437,456	138,493
Wheat do	246,409,467	3,471,137	242,060,862	4,797,831
Other kinds do	239,889.067	2,996,573	14,254,631	350,256
Charcoal do			23,968,873	283,562
Chestnuts do			720,532	30,291
China-root do	2,798,000	111,315	2,999,593	220,558
Chinaware (not pottery and earthenware) pounds			12,742,368	1,768,764
Chinaware, earthenware, and pottery do	65,720.800	1,554,424		
Cigarettes do	992.933	265.852	4,233,456	2,593,791
Cigars thousands			951	7,530
Clothing:				
Chinese, and boots and shoes		599,367		1,680,498
Boots and shoes, leather pairs			32,953	75,513
Caps, various number			276,637	94,389
Coal tons	1,489,182	4,805,625	1,708,149	9,719,247
Coke do			93,483	1,366,984
Cordage, all kinds pounds			5,322,253	277,655
Cosmetics				67,915
Cotton gins, and parts of				840
Cotton:				
Raw pounds	98,505,300	11,835,755	172,278,769	45,199,593
Waste do	7,480,400	255,899	4,461,189	262,013
Curiosities		663,655		150,422
Dates, black and red pounds			6,190,651	365,906
Dyestuff do			2,087,728	56,576
Egg, albumen and yolk do	20,796,400	2,146,144	38,580,837	11,103,522
Eggs:				
Fresh and preserved thousands	363,202	2,032,496	209,867	1,855,982
Frozen pounds			1,743,196	226,981
Fans, all kinds thousands	54,070	358,949	42,959	583,513
Feathers:				
Duck, fowl, etc pounds	54.590,000	1,082,461	4,761,455	553,311
Ornamental		42,972		8,547
Fibers:				
Abutilon pounds	139,067	3,680		
Coir do			2,074,395	174,192
Hemp do	10,788,400	456,378	19,817,817	2,168,601
Jute do	14,053,866	521,458	11,293,572	548,588
Ramie do	22,816,800	1,814,389	36,617,108	4,226,346
Firecrackers and fireworks do	20,743,733	2,332,766	9,236,244	2,621,190
Firewood do	299,754,933	550,047	370,775,206	1,372,955

Exports.	1913		1918	
	Quantity.	Value.	Quantity.	Value.
SUNDRIES—continued.				
Fish and fishery products:				
Fish—				
Fresh ... pounds	28,115,600	$1,384,236	1,751,662	$90,171
Dried and salt ... do			5,806,785	393,630
Cockles ... do			410,399	3,711
Cuttle-fish ... do			1,806,929	305,804
Prawns and shrimps ... do			278,666	71,220
Sea blubber ... do			977,198	41,969
Sharks' fins ... do			20,267	14,407
Other kinds ... do			2,853,193	418,730
Fishing nets ... do			578,132	216,773
Flour:				
Potato ... do			2,462,261	87,297
Wheat ... do			268,252,529	10,033,795
Other kinds of cereals ... do	18,560,800	444,772	2,305,861	88,832
Fodder (grass and hay) ... do			17,323,557	319,837
Fruits:				
Dried and preserved, n. e. s ... do	30,034,400	1,132,534	7,037,849	612,648
Fresh, n. e. s ... do	73,173,733	1,083,277	22,031,278	413,643
Fungus ... do	1,486,133	263,270	1,068,397	350,638
Furniture		129,500		194,670
Galangal ... pounds	1,996,000	16,401	1,411,463	44,792
Garlic ... do			24,415,139	866,724
Ginger, fresh and preserved ... do	8,469,733	139,810	7,057,049	200,042
Ginseng ... do			164,495	257,300
Glassware, bangles, etc ... do	1,752,533	271,086	1,308,797	295,120
Glue, cow ... do			1,018,664	160,932
Goldware and silverware ... do	13,380	172,181	29,457	571,352
Grass cloth ... do	2,073,333	1,141,837	1,905,595	2,285,564
Groundnut cake ... do			11,161,439	190,974
Groundnuts:				
In shell ... do	152,680,756	3,672,861	5,791,986	191,561
Kernels ... do			61,963,704	2,615,762
Gypsum ... do	11,133,200	34,174	15,257,295	105,419
Hair:				
Horse ... do	2,753,200	390,667	1,432,796	469,101
Other animals ... do			906,661	81,765
Human ... do	3,667,867	771,542	1,917,595	402,888
Hams ... do			4,061,723	716,664
Hats:				
Rush ... number	6,305,180	61,314	878,763	41,977
Wood-shaving or chip ... do	1,180,547	33,278	80,039	3,830
Honey ... pounds			225,199	27,099
Horns:				
Buffalo and cow ... do	1,152,800	48,463	1,099,464	61,598
Deer, young ... pairs	2,162	114,105	1,095	165,316
Indigo, liquid ... pounds			11,152,239	826,026
Ink, Chinese ... do	84,933	33,967	127,200	93,680
Intestines				619,817
Joss sticks ... pounds	7,831,333	269,095	7,564,914	459,292
Lace				1,138,973
Lard ... pounds			15,974,627	2,199,913
Launches and boats				25,536
Lead:				
White ... pounds			14,800	3,418
Yellow ... do			163,466	28,123
Leather ... do	2,468,533	432,501	3,589,991	1,355,992
Leather ware ... do			398,032	242,710
Lichees, dried ... do			3,524,658	655,938
Lily flowers, dried ... do	5,550,667	276,408	3,289,458	352,271
Licorice ... do	3,621,867	245,268	7,909,989	827,973
Lungngans, dried ... do			1,309,997	183,915
Machinery				215,041
Mats (not including matting) ... pieces	21,839,088	1,302,629	20,096,732	1,367,068
Matting ... rolls	266,231	1,495,761	52,216	521,894
Meats:				
Fresh or frozen (beef, mutton, pork, etc.) ... pounds	24,431,466	1,306,691	39,068,569	3,229,296
Prepared or preserved (including preserved game and poultry, but not hams or lard) ... pounds	14,603,066	1,421,520	11,327,705	1,583,692
Poultry and game, fresh or frozen ... do	3,265,066	180,441	1,070,397	151,531
Medicines		2,762,223		3,886,879
Moss ... pounds			99,066	37,402
Mushrooms ... do			359,599	218,881
Musk ... do	1,799	372,881	2,000	532,859
Nutgalls ... do	7,419,333	780,328	6,046,518	1,228,964
Oil:				
Bean ... do	65,575,600	2,720,637	303,621,508	29,802,630
Cottonseed ... do			17,769,556	1,486,065

Exports.	1913 Quantity.	1913 Value.	1918 Quantity.	1918 Value.
SUNDRIES—continued.				
Oil—Continued.				
Groundnut ... pounds	34,209,733	$2,065,256	78,750,070	$8,556,071
Rapeseed ... do			739,598	81,888
Sesame seed ... do			2,749,593	264,086
Tea ... do			3,136,525	315,469
Wood ... do			65,180,104	7,129,280
Vegetable, other kinds ... do	65,769,067	3,535,054	14,919,963	1,300,848
Oils, essential (aniseed, cassia-leaf, etc.) ... pounds	1,004,000	871,084	1,447,996	1,709,241
Olives, fresh and salted ... do			3,421,058	157,291
Oranges, fresh ... do			22,031,278	472,495
Paper:				
First quality ... do	33,263,333	2,319,345	7,925,847	1,409,945
Second quality ... do			7,933,847	627,442
Joss ... do			7,185,182	1,208,253
Mill ... do			663,732	52,801
Other kinds ... do			6,406,251	325,825
Pearls, real		5,632		41
Pears, fresh ... pounds			2,673,327	54,213
Peas ... do			34,874,713	780,524
Peel, orange and pomelo ... do	602,267	43,249	455,999	74,484
Pens, Chinese ... number			5,375,052	291,983
Persimmons, dried ... pounds			4,292,123	198,724
Pipes, tobacco, brass and white metal ... number			13,627	11,987
Plants and shrubs				41,403
Potash ... pounds			2,453,461	135,142
Potatoes ... do	20,778,133	106,856	7,702,514	88,123
Pottery and earthenware (not chinaware), ... pounds			25,019,404	809,796
Rattans, whole, split, and peeled ... do	2,646,400	100,616	1,933,862	150,392
Realgar ... do			219,333	17,959
Resin ... do			6,837,716	206,119
Rhubarb ... do	2,245,466	159,518	812,798	95,756
Salt ... do			702,752,110	2,163,082
Samshu ... do	18,839,467	639,781	11,049,039	609,108
Samshu, medicated ... do			6,101,985	617,213
Seed:				
Apricot (almonds) ... do	6,136,000	708,487	2,233,194	319,278
Cotton ... do	24,332,533	162,093	22,040,345	274,064
Lily flower ... do			929,864	150,905
Linseed ... do			11,744,504	354,024
Melon ... do	7,099,866	354,854	4,410,122	375,346
Rape ... do	82,236,400	1,416,068	89,349,910	2,719,704
Sesame ... do	271,286,267	9,019,329	31,213,655	1,399,847
Other kinds ... do	100,744,800	1,365,846	35,465,778	1,145,111
Seed cake:				
Rape ... do	175,059,867	1,029,409	53,072,801	605,829
Sesame ... do			59,333	660
Other kinds ... do			102,982,943	1,568,398
Silk:				
Raw—				
White—				
Not rereeled and not steam filature ... pounds	1,548,933	3,557,057	554,532	2,465,175
Rereeled ... do	2,740,400	7,688,823	1,927,195	10,807,442
Steam filature ... do	9,112,267	33,244,147	8,132,513	56,989,476
Yellow—				
Not rereeled and not steam filature ... pounds	2,351,067	3,547,508	1,648,129	4,867,560
Rereeled ... do			160,666	810,342
Steam filature ... do	159,867	325,224	425,732	2,514,920
Wild—				
Not filature ... do	3,873,733	5,091,032	701,465	1,485,538
Filature ... do	81,200	134,762	3,110,259	9,155,084
Cocoons ... do	3,395,866	1,697,183	4,365,322	3,126,166
Waste ... do	15,581,333	4,864,419	17,162,357	11,009,853
Cocoons, refuse ... do	3,473,200	470,774	5,752,652	1,316,474
Embroidery ... do			16,667	184,736
Piece goods ... do	2,366,800	10,377,832	1,971,595	15,224,838
Pongees ... do	2,233,200	4,839,152	2,636,260	7,336,280
Ribbons ... do			667	4,216
Thread ... do			35,467	183,272
Products, unclassed		615,826		384,950
Skins and hides, undressed:				
Buffalo and cow ... pounds	66,405,066	11,069,387	52,751,601	16,070,516
Goat, untanned ... pieces	7,153,693	2,965,359	8,940,671	6,883,596
Horse, ass, and mule ... pounds	1,517,866	179,204	3,920,924	793,974
Sheep ... pieces	552,425	171,190	716,262	536,450
Unclassed	55,451	41,226		25,747

Exports.	1913		1918	
	Quantity.	Value.	Quantity.	Value.
SUNDRIES—continued.				
Skins, dressed:				
Goat, tanned........pieces..	639,992	$314,432	1,076,916	$1,020,499
Kid........do....	112,347	18,602	131,206	36,795
Lamb........do....	587,151	488,668	218,341	254,334
Unclassed........do....	447	354	33,548	12,809
Skins, dressed, made up:				
Dog: Clothing, mats, and rugs.....do....	591,118	313,991	593,426	632,622
Goat—				
Clothing........do....	721	887	17	49
Mats and rugs........do....	328,577	261,386	133,145	189,699
Kid: Clothing........do....	93,483	100,843	167,983	245,818
Lamb: Clothing........do....	68,393	154,336	102,231	454,179
Sheep: Clothing, mats, and rugs...do....	41,618	34,041	15,702	43,032
Unclassed........do....	36,953	47,561	18,708	33,505
Skins (furs), dressed and undressed:				
Fox........do....	107,069	376,993	25,349	171,336
Marmot........do....	279,264	49,661	659,416	172,701
Raccoon........do....	226,787	90,465	83,217	79,096
Sable........do....	737	11,007	681	24,145
Weasel........do....	1,033,582	161,363	490,446	121,030
Tails, all kinds........	7,237	7,907		55,973
Unclassed........pieces..	2,132,703	475,584	2,289,880	972,985
Soap........				56,704
Soapstone ware........pounds..			59,467	8,347
Soda........do....			1,179,864	62,655
Soy........do....			820,531	45,871
Stone (marble, granite, etc.)........				394,121
Straw braid........pounds..	13,471,600	3,698,977	7,111,716	4,972,017
Sugar:				
Brown........do....	14,468,267	324,227	22,508,077	886,948
White........do....	73,467	2,151	4,344,656	293,015
Candy........do....	12,800	644	52,533	4,962
Cane........do....	2,245,147	132,505	32,021,520	366,449
Tallow:				
Animal........do....	16,370,800	929,976	18,762,620	2,334,456
Vegetable........do....	29,466,400	1,652,615	21,717,412	2,583,776
Tea:				
Black........do....	73,027,733	10,488,757	23,328,208	6,837,424
Green........do....	36,979,066	7,938,567	20,094,616	8,403,472
Brick—				
Black........do....	57,442,533	4,937,524	8,765,578	1,375,973
Green........do....	23,360,133	1,220,413	1,255,730	130,123
Tablet........do....	1,312,400	148,034	8,400	1,471
Dust........do....	159,333	6,610	416,132	30,639
Leaf, unfired........do....			26,800	2,677
Thread and yarn, ramie........do....			766,265	194,968
Timber:				
Hardwood........cubic feet..		1,862,763	325,086	183,655
Softwood........square feet..			31,909,342	1,639,059
Poles........number..			933,919	2,104,083
Tinfoil........pounds..			177,600	175,664
Tobacco:				
Leaf and stalk........do....	20,268,533	1,863,232	25,200,070	2,620,360
Prepared........do....			8,620,512	2,236,202
Toys........				21,024
Turmeric........pounds..			176,666	11,016
Turnips, dried and salted........do....			10,206,108	248,150
Umbrellas, paper (kittysols)........pieces..			2,230,761	567,578
Varnish........pounds..	1,790,933	613,313	2,282,794	1,198,654
Vegetables, fresh, dried, and salted, n. e. s........pounds..	156,814,400	1,824,149	70,276,491	1,155,221
Vermicelli and macaroni........do....	37,876,267	2,022,229	24,317,006	1,816,419
Vermilion........do....			6,267	14,413
Vinegar........do....			5,473,586	60,843
Walnuts:				
In shell........do....			1,270,530	59,623
Kernels........do....			2,039,862	225,580
Wax:				
White........do....	613,200	113,749	672,798	346,711
Yellow........do....			92,666	35,439
Woodware (not including furniture)........		168,916		665,990
Wool:				
Camels'........pounds..	4,400,933	580,705	5,109,054	1,840,619
Hair, goats'........do....	1,557,866	271,425	1,680,796	499,998
Sheep's........do....	37,368,266	4,000,419	42,404,694	12,260,189
Yeast........do....			4,135,456	176,818
Postal parcels not otherwise classified........		219,878		1,210,942
Sundries, unenumerated........		7,832,277		7,085,501
Total........		294,009,743		579,658,456

The following table shows the exports during 1904:

Exports.	1904	
	Quantity.	Value.
Alum, white.....pounds..	5,596,800	$38,905
Aniseed, star........do....	1,116,267	72,361
Bamboo and bamboo ware.	....	672,395
Bean cake........pounds..	153,460,000	1,644,431
Beans...............do....	256,496,133	3,438,910
Bones...............do....	20,239,333	79,068
Bran................do....	35,540,800	309,283
Bristles.............do....	5,106,533	1,743,569
Camphor............do....	295,867	81,462
Cassia lignea........do....	10,143,733	738,481
Cattle, sheep, pigs, and goats..........number..	252,057	2,177,893
China root.......pounds..	2,217,600	54,687
Chinaware, earthenware, and pottery....pounds..	41,963,867	1,161,417
Cigarettes...........do....	369,333	162,767
Clothing, Chinese, and boots and shoes............	....	1,152,911
Coal.................tons..	10,190	46,458
Cotton, raw......pounds..	163,811,733	17,311,493
Curiosities.....................	....	197,584
Egg albumen and yolk ....pounds..	6,329,200	291,732
Eggs, fresh and preserved ....number..	145,321,088	861,266
Fans, all kinds......do....	53,743,533	427,743
Feathers, duck, fowl, etc. ....pounds..	9,855,467	818,618
Firecrackers and fireworks ....pounds..	17,990,000	1,897,098
Fish and fishery products..	....	675,352
Fruits of all kinds.........	....	1,246,214
Fungus..........pounds..	910,800	260,587
Galangal............do....	2,278,933	20,519
Glassware, bangles, etc. ....pounds..	2,394,000	276,458
Gold and silverware. do....	12,105	183,319
Grass cloth..........do....	1,138,400	536,750
Groundnuts.........do....	13,112,667	236,999
Gypsum.............do....	8,908,133	23,428
Hair of all kinds..............	....	319,467
Hats:		
Rush........number..	1,491,654	22,915
Wood-shaving or chip ....number..	514,544	8,595
Hemp............pounds..	27,813,733	1,294,186
Hides, cow and buffalo ....pounds..	37,330,133	4,985,409
Horns:		
Cow and buffalo ....pounds..	1,123,733	40,690
Deer, young....pairs..	1,587	68,388
Joss sticks........pounds..	7,533,867	283,274
Lard (pork fat)......do....	7,269,600	516,479
Leather.............do....	2,335,600	276,849
Lily flowers, dried..do....	6,091,200	183,998
Licorice.............do....	2,098,933	121,356
Mats (not including matting)............pieces..	17,135,718	793,235
Matting.............rolls..	473,440	2,365,970
Medicines.....................	....	1,358,858
Minerals:		
Antimony and antimony ore...pounds..	15,511,067	235,728
Iron, pig and unmanufactured....pounds..	26,913,067	189,924
Quicksilver.....do....	46,400	21,626
Tin, in slabs....do....	6,718,800	2,234,150
Musk...............do....	2,047	298,876
Nankeens............do..	3,731,200	1,000,533
Nutgalls.........pounds..	5,533,067	$520,906
Oil (bean, groundnut, tea, wood, etc.).....pounds..	61,225,467	2,986,333
Oils, essential (aniseed, cassia-leaf, etc.)...pounds..	629,067	386,476
Opium..............do....	423,867	1,009,293
Paper...............do....	40,958,267	2,629,157
Preserves........pounds..	1,648,267	96,546
Provisions and vegetables (not including eggs).....	....	1,466,360
Rhubarb.........pounds..	1,080,667	68,444
Safflower............do....	4,400	1,155
Samshu.............do....	17,990,667	408,668
Seed:		
Apricot.........do....	451,600	55,187
Cotton..........do....	69,156,000	310,939
Melon...........do....	3,772,533	170,272
Rape............do....	722,267	26,901
Sesame..........do....	17,244,533	374,079
Seed cake..........do....	83,999,467	370,514
Silk:		
Raw—		
White.......do....	4,565,067	13,668,089
Yellow......do....	1,383,200	2,343,411
Steam filature ....pounds..	6,304,933	19,911,228
Wild........do....	4,470,267	6,883,444
Cocoons.........do....	1,468,667	660,088
Waste...........do....	8,919,067	2,103,913
Cocoons, refuse..do....	1,962,533	279,562
Piece goods.....do....	2,410,667	7,399,358
Shantung pongees ....pounds..	464,933	811,472
Products, unclassed...	....	561,710
Skins (furs), skin clothing, and rugs..................	....	5,114,624
Straw braid......pounds..	11,481,333	3,142,968
Sugar:		
Brown..........do....	42,896,933	777,298
Candy..........do....	95,333	4,078
White...........do....	5,805,290	165,236
Tallow:		
Animal (beef)...do....	3,583,200	154,167
Vegetable.......do....	9,989,733	525,577
Tea:		
Black...........do....	99,866,933	11,564,322
Green...........do....	32,152,800	6,609,876
Brick—		
Black.......do....	54,029,467	2,496,639
Green.......do....	5,663,200	284,023
Tablet..........do....	606,667	80,541
Dust............do....	1,180,800	45,570
Timber and wood of all kinds.......................	....	970,455
Tobacco, leaf and prepared ....pounds..	21,423,467	1,790,649
Varnish............do....	534,000	107,478
Vermicelli and macaroni ....pounds..	20,847,067	1,001,145
Wax, white.........do....	643,333	188,292
Wool:		
Camel's.........do....	3,246,123	331,225
Sheep's.........do....	34,796,800	3,212,436
Sundries, unenumerated...	....	7,383,237
Exports to foreign countries by junk in addition to those included above..	....	240,800
Total....................	....	167,161,705

The foregoing statistics, from the Chinese Maritime Customs returns, have been converted from Haikwan taels to United States currency at the following exchange rates for the tael: 1904, $0.698; 1913, $0.729; 1918, $1.193.

CHINA'S TRADE DEVELOPMENT EXPRESSED IN HAIKWAN TAELS.

In order to show the actual growth of Chinese commerce year by year for more than half a century, without the complicating factor of varying exchange rates, the following table is given, showing the net value of imports, exports, and total foreign trade, expressed *not* in United States currency but in the silver unit employed by the Maritime Customs Service—the *Haikwan tael:*

Years.	Net imports.	Net exports.	Total foreign trade.	Years.	Net imports.	Net exports.	Total foreign trade.
	Haikwan taels.	*Haikwan taels.*	*Haikwan taels.*		*Haikwan taels.*	*Haikwan taels.*	*Haikwan taels.*
1864....	51,293,578	54,006,509	105,300,087	1892....	135,101,198	102,583,525	237,684,723
1865....	61,844,158	60,054,634	121,898,792	1893....	151,362,819	116,632,311	267,995,130
1866....	74,563,674	56,161,807	130,725,481	1894....	162,102,911	128,104,522	290,207,433
1867....	69,329,741	57,895,713	127,225,454	1895....	171,696,715	143,293,211	314,989,926
1868....	71,121,213	69,114,733	140,235,946	1896....	202,589,994	131,081,421	333,671,415
1869....	74,923,201	67,143,988	142,067,189	1897....	202,828,625	163,501,358	366,329,983
1870....	69,290,722	61,682,121	130,972,843	1898....	209,579,334	159,037,149	368,618,483
1871....	70,103,077	66,853,161	136,956,238	1899....	264,748,456	195,784,832	460,533,288
1872....	67,317,049	75,288,125	142,605,174	1900....	211,070,422	158,996,752	370,067,174
1873....	66,637,209	69,451,277	136,088,486	1901....	268,302,918	169,656,757	437,959,675
1874....	64,360,864	66,712,868	131,073,732	1902....	315,363,905	214,181,584	529,545,489
1875....	67,803,247	68,912,929	136,716,176	1903....	326,739,133	214,352,467	541,091,600
1876....	70,269,574	80,850,512	151,120,086	1904....	344,060,608	239,486,683	583,547,291
1877....	73,233,896	67,445,022	140,678,918	1905....	447,100,791	227,887,197	674,988,988
1878....	70,804,027	67,172,179	137,976,206	1906....	410,270,082	236,456,739	646,726,821
1879....	82,227,424	72,281,262	154,508,686	1907....	416,401,369	264,380,697	680,782,066
1880....	79,293,452	77,883,587	157,177,039	1908....	394,505,478	276,660,403	671,165,881
1881....	91,910,877	71,452,974	163,363,851	1909....	418,158,067	338,992,814	737,150,881
1882....	77,715,228	67,336,846	145,052,074	1910....	462,964,894	380,833,328	843,798,222
1883....	73,567,702	70,197,693	143,765,395	1911....	471,503,943	377,338,166	848,842,109
1884....	72,760,758	67,147,680	139,908,238	1912....	473,097,031	370,520,403	843,617,434
1885....	88,200,018	65,005,711	153,205,729	1913....	570,162,557	403,305,546	973,468,103
1886....	87,479,323	77,206,568	164,658,891	1914....	569,241,382	356,226,629	925,468,011
1887....	102,263,669	85,860,208	188,123,877	1915....	454,475,719	418,861,164	873,336,883
1888....	124,782,893	92,401,067	217,183,960	1916....	516,406,995	481,797,366	998,204,361
1889....	110,884,355	96,947,832	207,832,187	1917....	549,518,774	462,931,630	1,012,450,404
1890....	127,093,481	87,144,480	214,237,961	1918....	554,893,082	485,883,031	1,040,776,113
1891....	134,003,863	100,947,849	234,951,712				

TRADE BETWEEN CHINA AND UNITED STATES.

Official United States statistics, received as this monograph was going to press, give the following totals for this country's imports from and exports to China, the several leased territories,[1] and Hongkong during the fiscal year ended June 30, 1919:

Sections of China.	Imports.	Exports.			Total trade.
		Domestic.	Foreign.	Total.	
China proper	$105,762,859	$82,618,254	$374,241	$82,992,495	$188,755,354
British leased territory	....	....	....	....	....
French leased territory	1,640	7,720	....	7,720	9,360
Kiaochow leased territory	189,746	75,103	12,503	87,606	277,352
Japanese leased territory	22,365,206	9,405,694	2,597	9,408,291	31,773,497
Hongkong	26,066,355	24,524,428	196,639	24,721,067	50,787,422
Total	154,385,806	116,631,199	585,980	117,217,179	271,602,985

The following table shows, by quantity and value, according to American figures, the exports from the United States to China during the fiscal years 1917 and 1918; Hongkong and the leased territories are shown separately:

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[1] The British leased territory embraces Weihaiwei in the Province of Shantung; the French leased territory embraces Kwangchow in the Province of Kwangtung; the Kiaochow leased territory is in the Province of Shantung; the Japanese leased territory embraces the Kwantung territory on the Liaotung Peninsula, comprising Port Arthur and Dairen.

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO CHINA.				
Abrasives:				
Wheels, emery amd other		$6,927		$8,459
All other		15,064		7,412
Agricultural implements, and parts of		2,100		4,942
Aluminum, and manufactures of		3,534		11,937
Art works: Paintings and statuary		4,229		4,573
Asbestos, manufactures of		4,681		30,908
Asphaltum, and manufactures of		17,175		45,452
Athletic and sporting goods		10,545		7,701
Babbitt metal...pounds	7,212	1,191	49,735	19,144
Blacking (including shoe paste)		9,927		27,001
Bones, hoofs, and horns, unmanufactured		836		3,140
Brass:				
Bars, plates, sheets, etc...pounds	3,500	1,068	16,719	6,863
Pipes and fittings				42,654
All other manufactures of		60,883		90,552
Breadstuffs:				
Bread and biscuit...pounds	51,026	7,560	130,088	25,559
Oatmeal...do	129,874	8,781	232,864	20,414
Preparations of, for table food		68,304		23,039
Wheat flour...barrels	9,806	44,532	275	2,791
All other breadstuffs		4,503		4,162
Bronze, manufactures of		6,241		3,665
Brushes		5,164		9,774
Buttons, and parts of		3,351		1,198
Cars, automobiles, and other vehicles:				
Aeroplanes, parts of		13,141		
Automobiles—				
Commercial...number	9	14,287	23	26,236
Passenger...do	509	383,371	833	818,659
Parts of (not including engines, etc.)		54,753		60,134
Cars, passenger, freight, and other, and parts of—				
For steam railways—Freight and other		287,671		
For other railways		8,500		
Bicycles, tricycles, etc		14,216		10,786
Motor cycles...number	92	16,943	77	13,822
All other		25,668		129,457
Celluloid, and manufactures of		6,264		4,350
Chemicals, drugs, dyes, and medicines:				
Acids		52,902		6,922
Baking powder...pounds	55,784	17,794	34,491	13,358
Bark, extract of, for tanning		14,051		12,124
Copper, sulphate of (blue vitrol)...pounds	179,802	14,944	380	65
Dyes, and dyestuffs		32,868		473,393
Ginseng...pounds	12,763	74,049	47,727	329,013
Glycerine...do			23,932	14,458
Infants' food				27,335
Medicinal, and pharmaceutical preparations		57,558		126,119
Petroleum jelly, etc		2,128		10,448
Roots, herbs, and barks, n. e. s		4,069		980
Soda, salts, and preparations of		77,408		198,047
All other		508,140		155,262
Chewing gum		7,389		8,861
Clocks and watches:				
Clocks and parts of		26,957		25,364
Watches and parts of		16,998		47,228
Cocoa and chocolate, etc		34,434		57,307
Coffee:				
Green or raw...pounds	25,381	3,556	4,531	725
Roasted or prepared...do	7,886	2,218	20,924	5,464
Confectionery		19,770		55,016
Copper:				
Refined, in ingots, bars, etc...pounds	8,802	2,913	70,014	18,336
Pipes and tubes...do			55,164	24,956
Plates and sheets...do	25,863	10,766	26,793	9,554
Wire...do	59,366	22,712	25,075	8,414
All other manufactures of		19,428		41,342
Cotton:				
Unmanufactured—Upland...pounds	2,402,768	403,142	2,186,998	600,643
Manufactures of—				
Cloths—				
Unbleached...yards	2,012,597	162,262	4,100,086	528,587
Bleached...do	434,186	52,486	1,055,443	142,666

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO CHINA—continued.				
Cotton—Continued.				
Manufactures of—Continued.				
Cloths—Continued.				
Colored—				
Printed....pounds..	765,025	$87,819	1,068,532	$138,259
Dyed in the piece....do....	187,831	14,837	670,627	106,359
All other....do....	431,855	41,507	70,860	25,537
Wearing apparel—				
Corsets....		4,807		4,724
Knit goods....		114,055		62,108
All other....		50,910		34,147
Yarn....pounds..		17,729	80,386	81,653
All other....		132,296		93,255
Dental goods....		5,247		8,280
Earthen, stone, and china ware:				
Brick, fire....thousands..	90	4,796	14	759
Chinaware....		3,594		4,638
Earthen and stone ware....		3,664		5,748
Sanitary earthenware....		3,822		6,816
All other....		1,556		39,557
Electrical machinery and appliances (except locomotives):				
Batteries....		20,330		31,125
Dynamos or generators....		222,373		109,973
Fans....number..	1,639	32,570	5,613	115,976
Insulated wire and cables....		115,525		97,494
Interior wiring supplies, etc....		20,596		8,832
Lamps, incandescent—				
Carbon filament....number..	200	36	6,800	894
Metal filament....do....	443,070	89,692	126,493	27,437
Meters, and measuring instruments....		5,507		35,676
Motor....		126,143		141,595
Switches and accessories....				51,565
Telegraph apparatus (including wireless)....		14,567		
Telephones....		116,745		91,355
Transformers....		56,573		39,847
All other....		281,263		184,429
Explosives:				
Cartridges, loaded....		2,971		22,112
Dynamite....pounds..	96,500	21,384	45,000	18,970
Gunpowder....do....	6,481	3,292		
All other....		20,861		26,757
Fibers, vegetable, manufactures of:				
Cordage....pounds..	8,844	$1,989	8,605	$2,921
Twine (except binding)....		4,951		2,316
All other manufactures of....		11,239		14.143
Fire extinguishers....		6,467		3,315
Fish:				
Salmon, canned....pounds..	42,017	5,177	68,949	13,372
All other canned (except shellfish)....		5,693		32,004
All other....		5,579		11,633
Flavoring extracts and fruit juices....		2,491		10,948
Fruits and nuts:				
Fruits—				
Apples, dried....pounds..	70,680	5,872	50,200	5,709
Apples, green or ripe....barrels..	2,371	15,213	1,910	8,722
Lemons....boxes..	6,216	28,047	4,522	30,205
Oranges....do....	2,031	7,263	1,986	8,489
Peaches, dried....pounds..	62,555	4,326	20,973	2,335
Prunes....do....	171,325	13,798	157,242	17,142
Raisins, and other dried grapes....do....	77,393	8,009	179,313	19,308
All other green, ripe, or dried fruits....		10,937		15,965
Fruits, preserved—				
Canned....		67,229		69,981
All other....		5,269		19,157
Nuts....		6,869		11,665
Furniture, of metal....		47,315		66,964
Furs and fur skins, and manufactures of....		26,964		22,118
Glass and glassware:				
Bottles, demijohns, etc....		10,433		25,525
Cylinder, crown, and common window glass, ...box, 50 square feet..	34,565	135,823	5,244	32,814
Plate glass....square feet..	38,918	15,003	64,219	31,325
All other....				173,924

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO CHINA—continued.				
Glucose (corn syrup)...pounds..	464,771	$19,483	165,340	$9,864
Glue...do....	151,482	19,498	405,844	109,202
Gold and silver, manufactures of...	...	4,980	...	886
Jewelry...	...	7,604	...	2,648
Grease:				
Lubricating...	...	17,285	...	35,884
Soap stock and other...	...	13,923	...	2,259
Hats and materials for...	...	266	...	7,835
Honey...pounds..	...	1,900	27,213	6,374
Household and personal effects...	...	90,505	...	28,062
India rubber, manufactures of:				
Belting, hose, etc...	...	18,115	...	56,973
Boots and shoes...pairs..	4,458	4,008	1,739	1,589
Druggist's rubber sundries...	...	...	...	9,002
Tires for automobiles...	...	36,952	...	53,039
Tires, all other...	...	1,650	...	3,769
All other manufactures of...	...	25,805	...	40,147
Ink:				
Printer's...	...	86,062	...	116,232
All other...	...	7,306	...	5,180
Instruments and apparatus for scientific purposes:				
Medical and surgical...	...	3,798	...	9,695
Optical...	...	33,623	...	14,548
All other...	...	32,318	...	28,728
Iron and steel:				
Pig iron...tons..	89	5,263	564	26,860
Scrap and old, for manufacture...do....	2,664	65,868	823	45,811
Bar iron...pounds..	2,759,248	84,077	1,154,309	52,538
Bars or rods of steel—				
Wire rods...do....	495,385	20,223	1,007,798	35,099
All other...do....	33,244,294	1,085,804	40,825,790	2,144,799
Billets, ingots, and blooms of steel...tons..	56	5,886	...	...
Bolts, nuts, rivets, and washers...pounds..	829,595	45,983	2,159,912	152,663
Car wheels and axles...	...	87,846	...	215,511
Castings, n. e. s...	...	6,030	...	14,965
Chains...	...	...	...	26,803
Cutlery—				
Razors...	...	8,503	...	4,827
All other...	...	6,730	...	24,546
Enamel ware—				
Bathtubs...number..	792	15,298	574	14,925
Lavatories and sinks...	...	11,220	...	8,390
All other...	...	21,770	...	19,433
Firearms...	...	6,054	...	24,514
Forgings, n. e. s...	...	...	...	11,979
Hardware—				
Builders'—				
Locks...	...	41,683	...	53,608
Hinges and other...	...	135,685	...	111,495
Other hardware...	...	...	...	30,952
Hoop, band, and scroll...pounds..	5,915,245	235,866	7,308,877	503,312
Machinery, n. e. s.—				
Adding and calculating machines...number..	42	6,501	65	11,022
Air-compressing machinery...	...	3,090	...	4,461
Cash registers...number..	11	1,058	47	4,321
Concrete mixers...	...	...	...	4,756
Elevators and elevator machinery...	...	1,924	...	13,697
Engines, and parts of—				
Internal-combustion engines—				
Gas, stationary...number..	34	6,160	89	94,130
Gasoline—				
Marine...do....	48	16,660	44	36,107
Stationary...do....	73	20,755	89	30,436
Traction and caterpillar...do....	4	3,396	...	...
Steam engines—				
Locomotives...do....	19	475,243	22	292,475
Stationary...do....	6	1,826	47	37,352
All other engines...do....	26	10,837	43	26,274
Parts of...	...	11,494	...	317,943
Laundry machines...	...	111,020	...	3,970
Metal-working machinery...	...	19,245	...	109,780
Milling machinery, flour and grist...	...	58,507	...	46,616
Minin[illegible]				
O[illegible]...	...	1,443	...	650
A[illegible]...	...	24,823	...	40,886
Pa[illegible]chinery...	...	1,493	...	4,668

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO CHINA—continued.				
Printing presses		331,497		325,190
Pumps, and pumping machinery		48,979		65,900
Refrigerating machinery, etc		37,668		36,620
Sewing machines		104,875		149,755
Textile machinery		211,176		137,181
Typesetting machines		241		11,742
Typewriting machines		63,354		96,799
Sawmill machinery		186		2,075
Woodworking machinery, all other		11,197		69,146
All other machinery, and parts of		377,981		493,013
Nails and wood screws—				
Cut ... pounds	110,340	3,465	497,838	15,790
Wire nails ... do	20,328,121	897,868	20,607,294	1,068,822
All other (including tacks) ... do	466,159	41,834	687,263	78,949
Wood screws				105,166
Pipes and fittings—				
Cast ... pounds	611,995	21,582	1,777,968	104,285
Wrought ... do	2,887,069	164,032	4,372,669	356,725
Radiators, etc ... do	864,407	55,370	1,184,504	65,663
Railway track material—				
Railroad spikes ... do	416,123	16,161	112,190	3,743
Rails of steel ... tons	1,393	51,539	2,586	170,566
Switches, frogs, splice bars, etc		10,937		170,932
Safes ... number	1,020	56,765	183	13,308
Scales and balances		42,137		26,655
Sheets and plates—				
Galvanized iron and steel sheets ... number	1,880,966	95,361	2,986,553	279,563
Iron sheets and plates ... do	757,018	31,731	2,167,971	173,368
Steel—				
Plates ... do	17,773,850	786,461	18,872,498	1,496,216
Sheets ... do	3,230,482	114,156	7,913,894	660,223
Ship and tank plates punched and shaped ... do			1,077,543	74,297
Stoves and ranges, and parts of		11,841		34,396
Structural iron and steel ... tons	5,619	360,650	3,650	495,632
Tin plates and manufactures of—				
Tin plates, terneplates, and taggers' tin ... pounds	30,558,220	1,534,263	14,302,220	1,428,545
All other manufactures of		21,575		11,975
Tools—				
Files and rasps				44,039
Saws		11,144		22,293
All other		79,285		52,838
Wire and manufactures of—				
Wire—				
Barbed ... pounds	50,210	2,311	2,332	128
All other ... do	6,161,623	298,967	11,382,030	771,019
Manufactures of—				
Wire ropes and cables				33,717
Woven-wire fencing		3,231		3,586
All other		113,974		75,741
All other manufactures of iron and steel		342,596		427,408
Lamps, etc. (except electric)		74,517		85,824
Lead:				
Pigs, bars, etc.—				
From domestic ore ... pounds	1,412,147	111,319	328,169	22,796
From foreign ore ... do	1,456,122	114,460	224,609	14,609
Manufactures of		28,009		10,287
Leather:				
Belting		42,673		48,410
Carriage, automobile, and upholstery		182		2,063
Patent		29,937		15,619
Sole ... pounds	1,687,227	808,534	334,413	185,442
Upper—				
Calf ... square feet	235,616	117,852	172,848	85,488
Kid ... do	266,978	135,866	599,447	249,511
Grain and split ... do			10,854	2,319
All other upper				39,430
All other leather		64,896		62,042
Manufactures of—				
Boots and shoes—				
Children's ... pairs	9,457	9,768	14,895	26,963
Men's ... do	46,887	152,782	54,797	225,460
Women's ... do	15,084	42,588	29,097	88,376
All other		9,909		16,694
Leather, imitation		3,098		10,133
Malt ... bushels	21,894	25,948	4,288	16,464

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO CHINA—continued.				
Meat and dairy products:				
Meat products—				
Beef, canned........pounds..	32,031	$9,136	10,802	$4,161
Tallow........do....	107,407	10,959	....	....
Lard compounds, and other substitutes, etc.do....	289,632	43,531	18,234	3,642
Stearin, from animal fats........do....	265,251	36,050	24	9
All other meat products—				
Canned........	....	17,221	....	20,534
All other........	....	19,370	....	35,922
Dairy products—				
Butter........pounds..	231,882	86,683	36,334	19,405
Cheese........do....	122,846	26,915	232,422	71,104
Milk, condensed........do....	4,495,800	497,663	3,666,776	575,120
Metal polish........	....	2,263	....	4,301
Metals, n. e. s........	....	....	....	9,999
Mucilage and paste........	....	810	....	7,583
Musical instruments:				
Organs........number..	114	5,934	88	3,921
Pianos........do....	81	19,298	109	25,950
All other........	....	8,906	....	17,085
Naval stores:				
Rosin........barrels..	1,926	13,910	7,933	62,243
Tar, turpentine, and pitch........do....	103	607	454	2,009
Turpentine, spirits of........gallons..	11,494	6,661	31,812	19,721
Nickel:				
Nickel, nickel oxide, etc........pounds..	6,720	2,700	69,246	34,848
Manufactures of........	....	431	....	16,554
Notions........	....	60,888	....	17,081
Oakum........pounds..	....	....	25,920	3,476
Oilcloth and linoleum:				
For floors........square yards..	7,547	4,563	110,926	58,632
All other........	....	31,767	....	48,152
Oils:				
Animal........gallons..	190	200	11	31
Mineral—Refined or manufactured—				
Gas oil and fuel oil........do....	2,846,377	117,085	....	....
Illuminating........do....	80,620,189	4,925,006	40,642,901	2,881,733
Lubricating........do....	2,104,446	408,193	2,828,598	564,874
Naphthas—				
Gasoline........do....	92,906	17,562	188,648	50,022
All other........do....	57,000	14,877	1,010	323
Residuum........do....	....	....	109	8
Vegetable—				
Fixed or expressed—				
Cottonseed........pounds..	30,534	4,718	25,812	5,170
Linseed or flaxseed........gallons..	18,431	16,832	2,449	3,851
All other........	....	25,100	....	4,440
Volatile or essential........	....	6,556	....	3,752
Paints, pigments, colors, and varnishes:				
Dry colors—				
Lampblack........	....	6,530	....	76,677
All other........	....	39,280	....	38,006
Ready-mixed paints........gallons..	69,761	90,289	62,913	82,432
Varnish........do....	7,506	8,634	8,423	15,075
White lead........pounds..	76,514	7,689	101,636	12,448
Zinc, oxide of........do....	18,927	1,841	17,931	2.249
All other (including crayons)........	....	35,983	....	62,315
Paper stock: Rags, n. e. s., and other (except wood pulp)........pounds..	415,520	5,450	67,200	1,109
Paper:				
Books, music, maps, etc........	....	195,107	....	220,180
Boxes and cartons........	....	3,378	....	23,988
Carbon paper........	....	7,250	....	5,549
Paper board and strawboard........	....	43,627	....	132,236
Paper hangings........	....	747	....	1,098
Playing cards........	....	63,233	....	113,050
Printing paper—				
News print........pounds..	615.539	23,072	2,647,942	147,194
All other........do....	1,852,934	184,350	1,335,936	148,005
Tissue and toilet paper........	....	(a)	....	23,231
Wrapping paper........pounds..	630,661	48,936	303,524	33,552
Writing paper and envelopes........	....	21,205	....	43,410
All other........	....	158,656	....	387,800
Paraffin and paraffin wax........pounds..	14,450,258	582,800	11,361,870	861,948
Pencils, and pencil leads........	....	2 674	....	9,939
Perfumeries, cosmetics, etc........	....	73,535	....	110,752
Phonographs, etc.:				
Phonographs, graphophones, etc........number..	938	54,858	1,071	33,376
Records and accessories........	....	18,519	....	11,057

[a] Included in "All other paper" prior to 1918.

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO CHINA—continued.				
Photographic goods:				
Cameras		$2,459		$5,575
Motion-picture films...linear feet	1,324,844	46,748	351,944	18,746
Other sensitized goods		22,992		20,577
All other		23,376		17,759
Plated ware		3,288		21,141
Quicksilver...pounds	6,755	7,550		
Refrigerators		56,317		6,792
Roofing felt and similar materials		66,548		84,337
Shoe findings		10,689		9,462
Silk, manufactures of		29,515		49,174
Soap:				
Toilet		69,332		61,965
All other...pounds	1,510,173	66,757	1,176,059	71,086
Spirits, wines, or fancy liquors, and other beverages:				
Malt liquors, in bottles...dozen quarts	28,925	34,466	17,459	31,560
Spirits, distilled—				
Rum...proof gallons	22,158	7,990	30,299	16,703
Whisky, rye...do	5,576	8,508	6,827	15,667
All other...do	2,438	3,160	10,117	25,704
Wines...gallons	87,857	85,192	386,190	182,295
All other		4,916		6,609
Sponges...pounds	68	160	13,655	9,141
Starch...do	140,946	5,920	101,527	7,417
Stone, and manufactures of		5,420		16,013
Sugar and molasses:				
Molasses and sirup...gallons	2,651	2,008	2,234	2,447
Sugar, refined...pounds	291,039	24,702	63,478	6,166
Surgical appliances (not including instruments)		80,791		28,613
Suspenders and garters				10,479
Tobacco:				
Unmanufactured—Leaf...pounds	9,887,842	1,712,960	7,959,312	2,584,731
Manufactures of—				
Cigarettes...thousands	4,579,120	9,097,712	5,398,371	9,339,526
Plug...pounds	68,712	15,952	4,060	1,507
Smoking...do	46,425	36,434	16,002	11,363
All other		4,651		4,617
Toys		7,975		25,441
Trunks, valises, and traveling bags		5,761		6,113
Vegetables:				
Beans and dried peas...bushels	2,903	11,223	551	4,150
Pickles and sauces		12,790		33,414
Canned		147,751		50,409
All other		1,835		2,096
Wax:				
Beeswax...pounds	100,178	33,930	175	58
Manufactures of		1,000		14,121
Wood:				
Lumber—				
Boards, etc.—				
Fir...thousand feet	21,348	271,397	8,121	168,452
All other...do	6	258	6	660
Shooks—				
Box		40,166		16,674
All other...number	82,199	122,063	46,869	132,349
Staves...do	434,193	22,990		
Heading		19,132		
All other		8,625		1,016
Doors, sash, and blinds		8,834		731
Furniture		31,217		46,772
Hogsheads and barrels, empty		190,062		39,842
Incubators and brooders		553		45,245
Wood pulp...tons	557	29,055		
All other manufactures of		25,628		20,493
Wool, manufactures of:				
Blankets				6,229
Cloths and dress goods...yards			45,018	80,526
Wearing apparel		26,561		18,816
All other manufactures of		98,612		50,102
Zinc:				
Rolled in sheets, etc...pounds	518,664	87,382	627,653	125,997
All other manufactures of		3,597		1,822
All other articles		46,664		91,523
Total		36,547,279		43,104,781
Total foreign exports		648,329		371,842
Total exports		37,195,608		43,476,623

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO CHINA: BRITISH LEASED TERRITORY.				
Cotton, manufactures of				$242
Glass and glassware				1,267
Iron and steel:				
Typewriting machines				3,423
Nails and wood screws				1,041
Dairy products: Milk—Condensed and evaporated, pounds			43,500	6,500
Quicksilver ... pounds			2,760	4,700
All other articles				4,173
Total domestic exports		$342		21,346
TO CHINA: FRENCH LEASED TERRITORY.				
Breadstuffs:				
Preparations of, for table food		3,734		212
All other breadstuffs		237		209
Brooms				4,185
Cars, automobiles, and other vehicles:				
Automobiles—				
Passenger ... number	20	9,325	2	2,017
Parts of (not including engines)		1,747		
Bicycles, tricycles, etc		223		268
Chemicals, drugs, dyes, and medicines: Dyes and dyestuffs		4,185		
Cotton, manufactures of:				
Cloths, colored ... yards	9,836	1,035	21,293	4,261
All other		2		3,828
Iron and steel:				
Bar iron ... pounds			85,760	3,263
Bars or rods, of steel ... do	444,045	11,366		
Bolts, nuts, rivets, and washers ... do	14,580	1,163	999	123
Hardware—Builders		1,555		
Machinery, machines, and parts of—				
Engines, and parts of—Internal combustion engines—Gasoline—				
Marine ... number	12	1,219	2	180
Traction and caterpillar ... do	1	878		
Typewriting machines		4,234		1,969
All other		11,427		3,669
Nails, wire ... pounds	2,030	108	120,000	8,400
Sheets—Galvanized iron and steel ... do	34,270	2,750	4,400	380
Structural iron and steel ... tons	122	7,151		
Tools, n. e. s		1,237		
Wire, and manufactures of		1,489		
All other manufactures of iron and steel		1,902		4,470
Lamps (except electric)		340		1,092
Dairy products: Milk—Condensed and evaporated, ... pounds			153,950	28,250
Oilcloth and linoleum		1,607		1,368
Oils: Mineral, refined or manufactured—				
Illuminating ... gallons	978,370	97,391	1,525,450	215,823
Lubricating, and heavy paraffin ... do	23,647	5,463	128,609	36,319
Naphthas, etc.—Gasoline ... do	95,000	25,794		
Paints				1,470
Paper, and manufactures of		1,614		222
Spirits, wines, malt liquors, etc.—Whiskey—Rye ... proof gallons	504	1,300		
All other articles		2,711		11,772
Total domestic exports		203,187		333,750
Total foreign exports				200
Total exports		203,187		333,950
TO CHINA: KIAOCHOW LEASED TERRITORY.				
Iron and steel: Machinery, machines, etc		1,577		
Pipes and fittings—Cast ... pounds			100,855	3,875
Iron sheets and plates ... do			94,470	12,972
Oils: Mineral, refined—Illuminating ... gallons	2,400,490	242,050		
All other articles		433		6,265
Total domestic exports		244,060		23,112

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO CHINA: JAPANESE LEASED TERRITORY.				
Abrasives		$44,953		
Agricultural implements:				
Hayrakes and tedders		4,256		
Mowers and reapers		14,390		
All other, and parts of		821		
Cars, automobiles, and other vehicles:				
Automobiles—Passenger ... number	33	17,796	10	$7,321
Cars, for railways		46,000		
All other		1,472		244,777
Chemicals, drugs, dyes, etc.:				
Acids		37,734		3,960
Dyes and dyestuffs		37,452		17,896
Ginseng ... pounds			1,508	10,500
Soda, salts, and preparations of		178		8,083
All other		36,623		57,928
Cocoa and chocolate, prepared, etc		6,459		31,556
Coffee, green or raw ... pounds	19,500	2,670	39,452	6,000
Cotton, manufactures of:				
Cloth, bleached ... yards	194	9	38,250	11,814
Cloths, colored, printed, etc ... do	596,324	47,312	372,232	94,212
Wearing apparel—				
Knit goods		71,550		12,257
All other		9,796		3,216
All other		7,980		12,853
Electrical machinery, appliances, etc.:				
Dynamos or generators (electric)		9,171		15,909
Meters and other measuring instruments (electric)		2,106		1,536
Motors		1,500		34,593
Telephones		4,334		2,539
All other		23,938		112,958
Fibers, vegetable, manufactures of:				
Twine, binder ... pounds			287,435	37,445
All other		1,777		117
Fly paper		4,553		
Fruits:				
Apples, dried ... pounds	24,000	2,136	3,800	446
Prunes ... do	31,625	2,425	6,880	930
All other, green or ripe		5,901		4,243
Prepared or preserved—				
Canned		6,462		1,450
All other		1,040		681
Furs, raw or unmanufactured		100		18,840
Glass and glassware:				
Cylinder, crown, and common window glass, ... box, 50 square feet	800	3,508		
All other		2,258		79
Glucose (corn sirup) ... pounds	298,988	15,054	13,629	720
Glue ... do	28,270	6,163		
Grease, lubricating		192		1,999
Iron and steel:				
Scrap and old ... tons	51	897	163	3,653
Bar iron ... pounds			415,890	18,970
Bars or rods of steel ... do	203,829	6,374	9,845,083	539,952
Billets, ingots, and blooms of steel ... tons	164	18,286		
Bolts, nuts, rivets, and washers ... pounds			56,340	9,793
Car wheels and axles				154,827
Firearms		4,014		3,620
Forgings, n. e. s				31,872
Hardware—				
Builders'—				
Locks		18,593		24
Hinges and other		19,003		4,030
Other hardware				3,364
Hoop, band, and scroll (iron, etc.) ... pounds	431,034	13,113	384,930	27,916
Machinery, machines, and parts of—				
Air-compressing machinery		1,092		318
Elevators, and elevator machinery				3,015
Engines, and parts of		2,513		11,062
Flour and grist-mill machinery				5,403
Metal-working machinery		15,340		4,316
Meters, gas and water		3,728		
Printing presses		4,150		
Sewing machines		11,031		16,560
Textile machinery		10,500		
All other machinery, and parts of		37,047		36,474
Nails and wood screws—				
Wire nails ... pounds	2,665,722	110,574	2,559,190	135,599
All other (including tacks) ... do	52,520	5,367	14,450	1,465

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO CHINA: JAPANESE LEASED TERRITORY—contd.				
Iron and steel—Continued.				
Pipes and fittings—				
Cast....pounds..	57,300	$2,379	10,697,428	$304,920
Wrought....do....	2,435,550	69,985	291,178	16,082
Radiators, etc....do....	266,398	14,491	19,601	1,045
Rails for railways (steel)....tons..	345	20,025		
Railway track material, etc....		1,726		110,027
Sheets and plates—				
Galvanized iron and steel sheets....pounds..			56,273	4,712
Iron....do....	156,667	8,405		
Steel plates....do....	110,100	5,882	3,002,574	169,169
Steel sheets....do....			713,588	61,387
Ship and tank plates, punched and shaped..do....			235,160	13,610
Structural iron and steel....tons..	72	4,938	86	7,556
Tin plates and manufactures of—				
Tin plates, terneplates, and tagger's tin.pounds..	66,339	3,714	8,400	1,050
All other manufactures of....		11,854		53
Tools—				
Shovels and spades....		29,684		1,462
All other....		69,927		14,337
Wire....pounds..	88,359	3,627	37,040	1,663
All other manufactures of iron and steel....		34,061		45,268
Leather:				
Belting....		1,100		2,748
Patent....		6,749		8,320
Sole....pounds..	1,886,186	1,048,870	532,315	317,515
Upper—				
Calf....square feet..	89,782	40,049	412	212
Kid....do....	102,182	56,561	63,440	30,803
All other leather....		12,080		4,951
Manufactures of—				
Boots and shoes—				
Children's....pairs..	8,093	11,571	26,314	70,013
Men's....do....	104,759	354,397	471,203	1,608,065
Women's....do....	7,287	19,266	30,073	78,341
All other manufactures of....		2,450		1,285
Meat and dairy products:				
Meat products—				
Beef products, tallow....pounds..	98,083	12,602		
Lard compounds and substitutes....do....	703,540	104,666		
Stearin from animal fats....do....	531,820	71,882		
Dairy products—				
Cheese....do....	14,447	4,523	484	130
Milk—Condensed....do....	160,800	18,360	223,805	33,057
All other....		1,938		
Naval stores:				
Rosin....barrels..	2,229	16,232		
Turpentine, spirits of....gallons..	7,000	5,000		
Oils: Mineral, refined, or manufactured—				
Illuminating....do....	2,187,750	230,244	770,680	95,339
Lubricating and heavy paraffin....do....	10,695	1,476	61,490	26,390
Paints, pigments, colors, and varnishes:				
Varnish....do....	1,666	3,328	116	158
White lead....pounds..	116,480	11,800		
All other (including crayons)....		4,412		1,346
Paper:				
Playing cards....		2,903		5,780
Printing paper....pounds..	32,500	3,504		
All other....		3,208		599
Paraffin....pounds..	2,833,624	196,260		
Pencils (except slate) and pencil leads....		2,475		
Photographic goods....		4,588		3,592
Plated ware (except cutlery and jewelry)....		39,051		78
Roofing felt and similar materials....		21,806		12,032
Shoe findings....		9,448		39
Silk, manufactures of....		5,522		2,406
Soap, toilet and other....		4,742		438
Vegetables....		1,061		3,014
Wood:				
Timber, sawed....thousand feet..	785	14,909		
Lumber—				
Boards, planks, etc....do....	100	1,700	1,366	34,276
Shooks—				
Box....				21,250
All other....number..	68,560	129,456	73,025	180,930
Staves....do....	73,796	4,565	42,000	3,210
All other manufactures of....		2,131		4,946

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO CHINA: JAPANESE LEASED TERRITORY—contd.				
Wool, manufactures of:				
Wearing apparel		$6,421		$296
All other		8,648		5,349
Zinc—Rolled in sheets, etc ... pounds	19,152	4,053		
All other articles		18,231		86,785
Total domestic exports		3,566,605		5,165,147
Total foreign exports		455,303		477,270
Total exports		4,021,908		5,642,417
TO HONGKONG.				
Abrasives		1,770		6,594
Agricultural implements, and parts of		1,938		1,712
Animals		240		365
Asbestos, manufactures of		2,636		10,453
Asphaltum, manufactures of		4,251		12,546
Athletic and sporting goods		967		8,026
Brass:				
Bars, plates, sheets, etc ... pounds	54,606	15,704	49,748	18,517
Pipes and fittings ... do			23,146	27,208
All other manufactures of		37,387		30,071
Breadstuffs:				
Bread and biscuit ... pounds	25,717	3,158	39,751	7,821
Oatmeal ... do	187,983	13,773	67,752	7,965
Preparations of, for table food		59,778		18.437
Wheat flour ... barrels	61,800	306,756	1,250	13,825
All other breadstuffs		10,010		10,390
Brushes		1,934		3,841
Cars, automobiles, and other vehicles:				
Automobiles—				
Commercial ... number			8	5,371
Passenger ... do	38	35,255	117	91,228
Parts of		2,885		7,702
Motor cycles ... number	37	7,531	18	3,070
All other		6,132		5,427
Chemicals, drugs, dyes, and medicines:				
Acids		3,688		2,723
Baking powder ... pounds	10,859	3,184	18,893	7,001
Dyes and dyestuffs		2,591		47,268
Ginseng ... pounds	180,243	1,282,151	123,390	832,212
Infants' food				12,661
Medicinal, and pharmaceutical preparations		21,659		12,395
Petroleum jelly, etc		2,507		4,024
Soda, salts, and preparations of		24,883		49,163
All other		89,192		31,790
Chewing gum		637		1,997
Clocks, and parts of		16,155		25,168
Watches, and parts of		511		5,142
Cocoa and chocolate, prepared, etc		4,911		12,454
Confectionery		13,402		21,012
Copper:				
Pipes and tubes ... pounds			68,722	29,682
Plates and sheets ... do	35,482	10,247	14,671	5,290
All other manufactures of		13,630		8,929
Cotton:				
Unmanufactured—Upland and other ... pounds			2,204,028	610,977
Manufactures of—				
Cloth—				
Unbleached ... yards	149,520	37,694	87,008	21,369
Bleached ... do	382	46	85,719	22,731
Colored—				
Printed ... do	106,905	15,941	92,497	15,469
Dyed in the piece ... do	22,536	3,733	157,739	29,245
All other ... do	455,327	52,856	253,322	63,981
Wearing apparel—				
Knit goods		15,544		15,933
All other		17,919		14,008
Yarn ... pounds		11,360	26,221	16,913
All other		98,724		41,258
Dental goods		1,166		8,890
Earthen, stone, and china ware		719		6,641
Electrical machinery, appliances, and instruments:				
Dynamos or generators (electric)		1,135		41,805
Fans (electric) ... number	1,131	22,083	2,414	57,544
Lamps (electric) ... do	17,330	4,210	49,922	11,366

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO HONGKONG—continued.				
Electrical machinery, appliances, and instruments—Continued.				
Meters, and other measuring instruments (electric)		$10,749		$8,401
Motors (electric)		14,762		27,162
Switches and accessories				6,398
Transformers (electric)		3,023		38,440
All other		19,523		47,719
Explosives:				
Dynamite ... pounds	50,000	11,677	30,000	10,150
Gunpowder ... do	47,785	37,790	25,000	18,200
All other		2,436		14,600
Fibers, vegetable, manufactures of		5,914		7,210
Fish:				
Dried—				
Cod, haddock, etc ... pounds	46,760	5,064	78,989	11,113
All other ... do	6,920	208	6,575	1,130
Canned—				
Salmon ... do	74,585	9,578	86,208	14,678
All other		3,189		
All other fish and fish products		624		12,859
Fruits and nuts:				
Fruits—				
Apples, green, or ripe ... barrels	3,151	15,158	1,949	8,986
Apricots, dried ... pounds	80,530	12,367	11,593	2,168
Raisins, and other dried grapes ... do	65,904	6,177	128,111	11,871
All other green, ripe, or dried fruits		9,289		16,904
Fruits, preserved—				
Canned		16,441		20,831
All other		1,092		10,626
Nuts		1,185		7,473
Furniture of metal		12,814		11,798
Glass and glassware:				
Bottles, vials, etc. (glass)		6,287		10,071
Cylinder, crown, and common window glass, ... box, 50 square feet	14,342	60,570	2,443	12,880
Plate glass ... square feet	198,502	69,538	23,461	9,221
All other		15,611		12,009
Glucose (corn sirup) ... pounds	120,036	5,498	169,275	9,975
Grease:				
Lubricating		9,300		10,682
Soap stock, and other		2,521		
Household and personal effects		13,695		19,323
India rubber, manufactures of:				
Belting, hose, etc		6,964		5,682
Tires—				
For automobiles		3,282		6,412
All other		4,132		1,076
All other manufactures of		4,016		9,957
Ink		2,058		4,378
Instruments and apparatus for scientific purposes		2,522		8,658
Iron and steel:				
Pig iron ... tons	300	6,000	849	37,678
Scrap and old, etc. (iron, etc.) ... do	752	17,933	1,011	36,964
Bar iron ... pounds	391,418	10,167	13,886,067	752,775
Bars or rods of steel—				
Wire ... do	238,990	9,951	1,649,118	77,477
All other ... do	18,124,572	585,828	34,975,825	1,812,328
Billets, ingots, and blooms of steel ... tons	382	61,214	777	75,494
Bolts, nuts, rivets, and washers ... pounds	884,176	52,184	2,408,396	178,403
Cutlery—				
Razors		4,781		11,007
All other		78,323		11,363
Enamelware		2,248		5,320
Firearms		2,783,756		664
Forgings, n. e. s				49,268
Hardware—				
Builders'—				
Locks		24,083		13,093
Hinges and other		28,114		12,599
Other hardware				3,440
Hoop, band, and scroll (iron, etc.) ... pounds	225,646	12,145	450,615	37,409
Machinery, machines, and parts of, n. e. s.—				
Adding and calculating machines ... number	4	810	10	2,843
Engines, and parts of—				
Steam, locomotives ... do	2	24,000	3	11,740
All other ... do	36	4,309	127	55,533
Parts of		9,211		46,648

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO HONGKONG—continued.				
Iron and steel—Continued.				
Machinery, machines, and parts of, n. e. s.—Continued.				
Metal working machinery		$2,391		$15,565
Mining machinery		4,328		1,167
Pumps and pumping machinery		4,970		28,526
Refrigerating machinery		4,396		9,733
Sewing machines		18,250		50,401
Textile machinery		9,658		10,214
Typewriting machines		9,218		13,928
Woodworking machinery		4,767		6,831
All other		70,270		65,911
Nails and wood screws—				
Cut nails ... pounds	222,163	11,791	8,000	660
Wire nails ... do	15,437,776	530,900	10,020,552	578,212
Wood screws				20,476
All other (including tacks) ... pounds	243,179	32,337	358,176	61,633
Pipes and fittings—				
Cast ... do	26,561	1,205	13,077	883
Wrought ... do	1,162,035	55,213	682,247	57,628
Radiators ... do	92,563	6,452	11,682	1,038
Railway track material—				
Rails of steel ... tons			1,134	66,358
Switches, frogs, etc.		798		21,492
Scales and balances		11,217		6,884
Sheets and plates—				
Galvanized iron and steel sheets ... pounds	536,959	21,974	1,258,414	114,373
Iron sheets and plates ... do	2,107,467	86,289	7,561,348	673,486
Steel—				
Plates ... do	19,717,569	807,664	30,252,849	2,658,264
Sheets ... do	1,041,867	45,964	3,973,054	353,780
Ship and tank plates, punched and shaped, pounds			2,392,249	234,800
Structural iron and steel ... tons	4,010	245,961	2,102	274,474
Tin plates and manufactures of—				
Tin plates, terneplates, and taggers tin ... pounds	22,169,791	1,173,017	23,182,552	2,206,662
All other manufactures of		21,086		11,262
Tools, n. e. s.—				
Axes ... number	288	132	6,168	4,987
Auger bits and drills				1,368
Files and rasps				11,995
Hammers and hatchets		511		1,055
Saws		5,240		7,153
Shovels and spades		1,671		665
All other		23,464		13,012
Wire, and manufactures of—				
Wire—				
Barbed ... pounds	8,480	466	169,672	7,629
All other ... do	5,258,685	267,541	9,211,356	539,462
Manufactures of—				
Wire ropes and cables				11,887
Woven-wire fencing				119
All other		40,279		5,498
All other manufactures of iron and steel		112,012		136,024
Lamps, etc. (except electric)		8,609		12,511
Lead: Manufactures of		417		6,203
Leather:				
Belting		4,976		10,968
Patent		5,402		601
Sole ... pounds	145,393	71,708	4,613	3,287
Upper—				
Calf ... square feet	80,548	37,674	98,009	56,238
Kid ... do	10,036	6,664	8,454	3,997
All other upper		168,467		17,208
All other leather		15,787		1,399
Manufactures of—				
Boots and shoes—				
Children's ... pairs	2,723	2,965	1,751	2,658
Men's ... do	10,152	25,870	8,840	34,315
Women's ... do	10,782	22,390	9,752	28,376
All other, including slippers ... do	3,795	4,034	1	14
All other		2,094		3,144
Meat and dairy products:				
Meat products—				
Beef products—				
Beef, canned ... pounds	55,026	12,202	16,064	5,501
Oleomargarine, imitation butter ... do	33,546	4,537		

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO HONGKONG—continued.				
Meat and dairy products—Continued.				
Meat products—Continued.				
Hog products—				
Hams and shoulders, cured.....pounds..	11,029	$3,138	11,039	$3,604
Pork, canned.....do....	5,518	1,461	7,314	3,220
Lard compounds, and other substitutes, etc., pounds.....	1,238	207	2,189	812
Sausage.....pounds..	14,806	3,629	15,412	5,887
All other.....		10,321		18,483
Dairy products—				
Butter.....pounds..	13,260	5,611	3,810	2,161
Cheese.....do....	84,887	18,091	159,769	47,911
Milk, condensed.....do....	5,801,270	576,708	5,515,114	855,216
Metal compositions, n. e. s.:				
Babbit metal.....do....	1,120	139	88,632	19,957
All other.....				35,688
Moss.....				14,457
Musical instruments, and parts of.....		3,904		47,339
Naval stores:				
Rosin.....barrels..	366	2,810	504	3.743
All other.....		128		1,109
Nickel:				
Nickel, nickel oxide, and matte.....pounds..	13,899	8,375	31,000	17,980
Manufactures of.....		14,620		
Notions.....		5.124		9,614
Oilcloth and linoleum.....		1,872		7,483
Oils:				
Animal.....gallons..			30	20
Mineral, refined or manufactured—				
Gas and fuel.....do....	391,104	6,798		
Illuminating.....do....	21,012.149	1,276,303	8,054,286	588,395
Lubricating and heavy paraffin.....do....	643,561	135,601	1,420,972	382,853
Vegetable—				
Fixed or expressed.....		1,483		2,436
Volatile or essential—				
Peppermint.....pounds..	685	1,742	510	1,230
All other.....				69
Paints, pigments, colors, and varnishes:				
Dry colors.....		376		21,228
Ready-mixed paints.....gallons..	3,244	4,925	5,197	10,000
All other (including crayons).....		10,639		29,844
Paper stocks: Rags, and other, etc.....pounds..	1,468,074	56,680	2,807,608	48,772
Paper:				
Books, music, maps, etc.....		16,956		45,090
Paper hangings.....		4,571		30
Playing cards.....		26,451		35,140
Printing paper—				
News print.....pounds..	346,010	11,394	253,030	11,986
All other.....do....	9,241	1,292	103,870	10,640
Writing paper and envelopes.....		7,194		5,247
All other.....		183,790		159,211
Paraffin and paraffin wax.....pounds..	497,734	30,303	3,407,860	124,689
Perfumery.....		17,832		42,005
Phonographs, graphophones, gramophones, and records, and materials for:				
Phonograph, graphophones, etc.....number..	168	8,002	282	5,569
Records and materials for.....		8,065		3,077
Photographic goods:				
Motion-picture films (exposed).....linear feet..	73,800	5,611	623,105	37,056
All other sensitized goods.....		4,436		6,219
All other.....		6,490		6,279
Plated ware.....		2,126		2,492
Quicksilver.....pounds..	93,625	99.861	85,000	107,510
Roofing felt and similar materials.....		6,908		4,347
Seaweed.....		23,317		
Shoe findings.....		2,275		7,514
Silk, manufactures of.....		1,968		8,257
Soap:				
Toilet.....		12,275		36,739
All other.....pounds..	444,427	23,583	214,604	11,921
Spirits, wines, malt liquors, and other beverages:				
Malt liquors—In bottles.....dozen quarts..	3,833	5,553	5,846	8,714
Spirits, distilled.....proof gallons..	512	1.221	314	283
Wines.....gallons..	16,823	6,677	145,427	72,215
Other beverages.....		1,010		536
Starch.....pounds..	29,146	1,862	109,632	6,505

Exports from United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO HONGKONG—continued.				
Surgical appliances, not including instruments		$3,001		$2,438
Suspenders and garters				6,926
Tobacco:				
Unmanufactured—Leaf .... pounds	3,324,572	706,995	5,277,665	1,957,776
Manufactures of—				
Cigarettes .... thousand	109,275	195,258	221,996	397,526
Plug .... pounds	9,132	2,414	5,860	1,178
Smoking .... do	17,740	10,558	556	361
All other		25		1,966
Toys		2,077		4,598
Wax, manufactures of		5		22,262
Vegetables:				
Beans and dried peas .... bushels	1,152	7,004	726	4,967
Pickles and sauces		3,442		24,473
Canned		12,833		17,150
All other		1,735		529
Wood:				
Logs and other round timber .... thousand feet	44	2,110	41	3,092
Lumber—				
Boards, planks, and scantlings—				
Fir .... do	1,478	19,615	202	6,024
All other .... do	10	300		
Shooks—				
Box		650		146,277
All other .... number			979	5,092
Staves .... do			50,000	1,750
All other		300		3,580
Furniture		4,429		5,878
All other manufactures of		4,947		12,936
Wool, and manufactures of		28,980		25,830
Zinc:				
Rolled in sheets .... pounds	17,243	3,182	118,474	23,294
All other manufactures of		2		7,115
All other articles		37,800		67,914
Total domestic exports		14,147,157		20,197,596
Total foreign exports		77,118		78,042
Total exports		14,224,275		20,275,638
Grand total		55,889,380		69,773,086

The following table shows the exports from the United States to China during the fiscal year 1914, the last year before the outbreak of the Great War:

Exports from United States.	Year ended June 30, 1914.	
	Quantity.	Value.
TO CHINA.		
Domestic exports:		
Breadstuffs—		
Preparations for table food		$33,530
Wheat flour .... barrels	133,424	540,344
All other		11,561
Cars, carriages, other vehicles, and parts of—		
Automobiles—Passenger .... number	144	143,619
Cars, passenger, freight, and parts of		16,217
All other		28,397
Chemicals, drugs, dyes, and medicines—		
Medicines, patent or proprietary		28,631
All other		111,984
Copper, and manufactures of		79,788

Exports from United States.		Year ended June 30, 1914.	
		Quantity.	Value.
TO CHINA—continued.			
Domestic exports—Continued.			
Cotton, and manufactures of—			
Unmanufactured	pounds	4,489,563	$588,240
Cloths—			
Unbleached	yards	83,349,403	5,667,392
Bleached	do	2,495,294	190,076
Colored	do	3,311,753	238,989
All other manufactures of			91,231
Electrical machinery, appliances, and instruments—			
Fans	number	959	23,581
Motors			23,577
All other			137,910
Fruits and nuts—			
Fruits—			
Green, ripe, or dried			46,025
Prepared or preserved			27,007
All other			5,006
Glass and glassware			21,496
Grease			29,117
Household and personal effects			108,627
India rubber, manufactures of			74,338
Ink			36,474
Iron and steel, and manufactures of—			
Bar iron	pounds	897,121	21,116
Bars and rods of steel	do	3,150,325	74,695
Builders' hardware			134,986
Machinery, machines, and parts of—			
Engines, and parts of—			
Steam—			
Locomotives	number	20	328,629
Stationary	do	102	136,307
All other engines, and parts of			79,081
Milling machinery			132,635
Typewriters			46,822
All other machinery, and parts of			280,417
Nails and spikes—			
Wire	pounds	9,576,682	206,427
All other	do	1,079,278	19,381
Pipes and fittings	do	2,956,404	97,259
Rails for railways, steel	tons	12,998	367,801
Sheets and plates—			
Iron	pounds	1,771,365	60,100
Steel	do	3,548,293	115,798
Structural iron and steel	tons	1,580	94,644
Tin plates, terne plates, and taggers tin	pounds	8,988,078	298,977
Tools, n. e. s			77,858
Wire, and manufactures of—			
Wire	pounds	1,337,064	27,366
Manufactures of			30,557
All other manufactures of iron and steel			302,087
Lamps, chandeliers, etc. (except electric)			81,675
Lead, and manufactures of—			
Lead in pigs	pounds		(a)
All other			56,599
Leather and tanned skins, and manufactures of—			
Leather and tanned skins			105,575
Manufactures of leather			38,316
Meat and dairy products—			
Meat products			35,114
Milk, condensed	pounds	1,080,544	91,890
All other dairy products			14,446
Oils—Mineral, refined—			
Gas and fuel oil	gallons	228,571	5,713
Illuminating oil	do	86,006,918	6,348,612
Lubricating and heavy paraffin oil		1,324,303	212,560
Naphthas, etc	do	174,325	33,639
Paints, pigments, colors, and varnishes			74,719
Paper and manufactures of—			
Books, music, maps, engravings, etc			143,743
All other			48,592
Paraffin, and paraffin wax	pounds	8,375,860	317,686
Spirits, wines, malt liquors, and other beverages			29,869
Tobacco, and manufactures of—			
Unmanufactured—Leaf	pounds	11,445,697	2,004,730
Cigarettes	thousands	1,093,893	1,740,240
All other manufactures of			35,280
Vegetables			51,936

[a] Not enumerated separately prior to 1915.

Exports from United States.	Year ended June 30, 1914.	
	Quantity.	Value.
TO CHINA—continued.		
Domestic exports—Continued.		
Wood, and manufactures of—		
Lumber—		
Boards, planks, and deals ... thousand feet	107,115	$1,164,780
Shooks—		
Box ... number	591,371	45,500
All other ... do	107,222	184,610
All other lumber		30,253
All other manufactures of wood		95,572
All other articles		436,486
Total domestic exports		24,662,116
Total foreign exports		36,618
Total exports of merchandise		24,698,734
TO CHINA: BRITISH LEASED TERRITORY.		
Total exports of merchandise (domestic)		4,047
TO CHINA: FRENCH LEASED TERRITORY.		
Domestic exports:		
Cars, etc.—Automobiles—Commercial ... number		
Chemicals, drugs, etc.—Medicines, patent, etc		182
Iron and steel, manufactures of—		
Machinery, etc.—Typewriting machines		1,733
Scales and balances		616
Oil—Mineral, refined—		
Illuminating oil ... gallons	1,593,000	149,616
Lubricating, and heavy paraffin oil ... do	26,500	5,300
Naphthas, etc.—		
Gasoline ... do	33,250	6,080
All other ... do		
All other articles		2,587
Total exports of merchandise (domestic)		166,114
TO CHINA: KIAOCHOW LEASED TERRITORY.		
Total exports of merchandise (domestic)		3,850
TO CHINA: JAPANESE LEASED TERRITORY.		
Domestic exports:		
Breadstuffs—Wheat flour ... barrels	159,051	625,602
Cars, etc.—Passenger and freight, and parts of		44,777
Chemicals, drugs, dyes, and medicines		253
Electrical machinery, appliances, and instruments—		
Dynamos or generators		16,253
Motors		13,898
All other		22,488
Fruits—		
Green, ripe, or dried		695
All other		5,149
Glass, and glassware		
Glue ... pounds		
Iron and steel, manufactures of—		
Bars or rods of steel ... do	371,522	4,845
Machinery, machines, and parts of—		
Engines and parts of—		
Steam—Locomotives ... number	4	42,500
All other, and parts of		20,154
Metal-working machinery		6,909
Sewing machines		6,670
All other, and parts of		56,693
Nails and spikes ... pounds	3,137,908	69,544
Pipes and fittings ... do	375,394	9,581
Rails for railways of steel ... tons	732	21,110
Sheets and plates—		
Iron ... pounds		
Steel ... do	415,369	7,128
Structural iron and steel ... tons	162	6,902
Tin plates, terneplates, and taggers tin ... pounds		
Tools, n. e. s		9,529
Wire, and manufactures of		3,706
All other manufactures of iron and steel		58,065
Leather and tanned skins, and manufactures of		897
Meat and dairy products—Condensed milk ... pounds	36,970	2,224

Exports from United States.	Year ended June 30, 1914.	
	Quantity.	Value.
TO CHINA: JAPANESE LEASED TERRITORY—continued.		
Domestic exports—Continued.		
Oils—Mineral, refined—		
Gas oil and fuel oil gallons		
Illuminating oil do	3,443,070	$321,841
Lubricating, and heavy paraffin oil do	121,492	15,409
Naphthas, etc do	76,000	14,583
Paper, and manufactures of		7,054
Paraffin and paraffin wax pounds	523,963	19,734
Roofing felt and like materials		5,288
Soap		2,431
Wood, and manufactures of		12,553
All other articles		18,574
Total exports of merchandise (domestic)		1,473,339
TO HONGKONG.		
Domestic exports:		
Breadstuffs—		
Wheat flour barrels	1,141,095	4,501,672
All other		38,883
Chemicals, drugs, dyes, and medicines—		
Ginseng pounds	220,767	1,810,901
All other chemicals, etc		37,139
Copper—Pigs, ingots, and bars pounds	2,805,926	392,109
Cotton and manufactures of—		
Upland and other (including linters) do	146,300	17,000
Cloths—		
Unbleached yards	640,120	103,125
Other do	178,780	20,620
Wearing apparel		45,697
Yarn		116,018
All other manufactures of cotton		5,887
Fish—		
Dried, smoked, or cured pounds	6,806,719	187,020
All other		42,875
Fruit		42,175
Iron and steel, and manufactures of—		
Bars or rods of steel pounds	126,491	1,892
Machinery, machines, and parts of—		
Mining machinery		290,072
All other machines and parts of		219,977
Nails and spikes—		
Wire pounds	217,797	4,882
All other do	84,453	4,491
Tin plates, terneplates, and taggers tin do	3,372,045	106,250
All other manufactures of iron and steel		145,500
Lead, and manufactures of—Pigs, bars, etc pounds		
Meat and dairy products—		
Milk, condensed do	144,499	12,898
All other meat and dairy products		13,911
Oils—Mineral, refined, or manufactured—		
Gas oil and fuel oil gallons	6,103	486
Illuminating do	20,093,317	1,321,809
Lubricating, and heavy paraffin do	591,396	106,421
Naphthas, etc.—Gasoline do		
Residuum (including tar), etc do	1,680,000	26,000
Paper and manufactures of—		
Playing cards		56.822
All other manufactures of paper		12,867
Paraffin and paraffin wax pounds	2,073,275	73,859
Tobacco, and manufactures of—		
Unmanufactured—Leaf do	1,630,425	247,499
Manufactures of		25,532
Wood, and manufactures of—Lumber—		
Boards, planks, and deals—Fir 1,000 feet	9,714	117.618
All other lumber		25,563
All other articles		462,166
Total domestic exports		10,637,636
Total foreign exports		58,578
Total exports of merchandise		10,696,214
Grand total		37,042,298

The following table shows, by quantity and value, the imports to the United States from China during the fiscal years 1917 and 1918; Hongkong and the leased territories are shown separately:

Imports to United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
FROM CHINA.				
Animals: All other (including live poultry)		$5,342		$5,075
Antimony:				
Ore..contents..pounds	3,555,993	427,939	1,716,424	121,136
Matte, regulus, or metal..pounds	9,347,571	1,109,326	11,352,167	1,330,050
Articles specially imported:				
Articles temporarily imported for export within 6 months		88		
For manufacture in bonded warehouse and export		12,919		60,214
Philosophical and scientific apparatus		71		
Specimens of natural history		195		29
Works of art for exhibition, presentation to public institutions, etc		1,055		80
Articles, the growth, produce, and manufacture of the United States, returned		331,234		68,110
Art works		562,373		458,260
Beads and bead ornaments		8,790		19,023
Bone, hoofs, and horns, and manufactures of		2,062		1,534
Brass, fit only for remanufacture..pounds			67,200	9,533
Breadstuffs:				
Farinaceous substances, and preparations of (sago, tapioca, etc.)		61,872		79,990
Macaroni, vermicelli, and all similar preparations, pounds	78,571	6,651	78,814	9,773
Rice—				
Uncleaned (including paddy)..pounds	295,040	7,955		
Cleaned..do	50,783,593	1,553,771	115,273,999	3,950,504
Rice flour, rice meal, and broken rice..do	10,425,256	202,244	16,865,955	464,614
All other		1,796		1,065
Bristles:				
Not sorted, bunched, or prepared..pounds	11,071	9,259	19,300	18,550
Sorted, bunched, or prepared..do	2,373,758	1,718,548	2,856,776	2,555,730
Bronze, manufactures of		6,423		2,465
Brushes, feather dusters, and hair pencils		11,305		16,138
Buttons, and parts of		1,751		3,209
Chemicals, drugs, dyes, and medicines:				
Cinchona bark, etc..pounds			191,185	47,856
Coal-tar distillates, preparations, or products—Colors or dyes		44,591		8,818
Gums—				
Camphor, crude, natural..pounds	185,772	57,777	316,926	166,884
Camphor, refined and synthetic..do	30,000	11,101		
All other		3,514		52
Indigo..pounds	9,333	12,133		
Licorice root..do	3,644,203	191,590	4,300,302	278,174
Preparations, medicinal		8,380		24,852
Soda, salts of		30,064		
All other chemicals, drugs, dyes, etc		1,934,635		4,644,571
Copper, and manufactures of:				
Unrefined black, blister, and converter copper in bars, pigs, or other forms..pounds	448,000	75,143		
Refined copper in bars, plates, rods, or other forms..pounds	336,000	84,000		
All other		1,274		2,205
Cotton and manufactures of:				
Unmanufactured..pounds	16,760,960	2,180,510	21,899,516	5,304,448
Manufactures of—				
Cloths..square yards	435	41	10,315	4,474
Laces, embroideries, etc., and articles made thereof (except wearing apparel)—				
Embroideries, including edgings, insertings, and galloons		9,230		27,093
Laces and lace articles, including edgings, insertings, and galloons—				
Handmade		113,467		362,413
All other		36,058		256,315
All other		1,617		40,254
Plushes, velvets, etc..square yards	41	21	1,155	926
Waste or flocks..pounds	2,465,811	142,314	516,073	41,212

Imports to United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
FROM CHINA—continued.				
Cotton and manufactures of—Continued.				
Manufactures of—Continued.				
Wearing apparel—				
Knit goods		$1,478		$101
All other		10,930		29,092
All other manufactures of		8,632		7,399
Dice, draughts, chessmen, etc		1,630		1,299
Earthen, stone, and china ware:				
China, porcelain, etc.—Not decorated		639		944
China, porcelain, etc.—Decorated		65,255		85,566
Earthen and crockery ware—Decorated		5,233		4,454
All other		9,178		8,295
Edible substances, n. e. s		11,798		19,284
Eggs of poultry ... dozen	464,568	83,135	479,617	103,122
Eggs, dried, frozen, etc ... pounds	9,094,003	1,615,379	14,024,349	3,967,516
Explosives		377,766		81,582
Fans:				
Common palm leaf ... dozen	258,369	40,661	117,714	23,876
All other		2,474		2,148
Feathers, etc., natural and artificial:				
Feathers and downs, crude, etc		408,754		761,917
Feathers, etc., dressed, colored, or manufactured, and not suitable for millinery ornaments		8,233		3,522
Feathers suitable for millinery ornaments, flowers, fruits, etc., artificial or ornamental, and manufactures of		2,621		2,783
Fibers, vegetable, and textile grasses, and manufactures of, n. e. s.:				
Unmanufactured—				
Hemp ... tons	4	823	264	70,662
Jute and jute butts ... do	653	51,949	400	83,622
Kapoc ... do	13	4,418		
Manila ... do	184	16,916		
Sisal grass ... do	786	157,552	64	13,442
All other ... do	1,134	224,497	2,535	620,488
Manufactures of—				
Fabrics, etc., of flax, hemp, ramie, etc., square yards	226	70	3,046	6,095
Handkerchiefs		482		2,257
Laces, embroideries, etc., and articles made thereof (except wearing apparel)		10,008		34,848
All other		7,188		2,083
Fish:				
Cured or preserved—				
Fish (except shellfish) packed in oil		9,216		19,012
All other		77,019		69,171
Fresh fish ... pounds	810	221	1,554	286
Shrimps, and other shellfish, and turtles		38,320		51,002
Fruits and nuts:				
Fruits—				
Olives ... gallons	8,023	3,302	9,562	5,342
Oranges				4,024
Preserved		23,343		18,781
All other		12,783		10,723
Nuts—				
Almonds, shelled ... pounds	11,569	2,388	19,241	4,687
Coconut meat, broken, or copra, not shredded, desiccated, or prepared ... pounds	227,838	9,760	140,410	17,451
Peanuts—				
Not shelled ... do	191,239	7,778	210,812	12,559
Shelled ... do	5,757,958	240,788	9,219,420	509,609
Walnuts—				
Not shelled ... do	6,472,081	403,169	777,961	60,668
Shelled ... do	1,139,942	147,390	1,306,147	293,824
All other		51,068		24,697
Furs, and manufactures of:				
Furs and fur skins, undressed		618,247		1,641,979
Furs, dressed, and manufactures of—				
Furs, dressed on the skin		945,092		674,925
Manufactures of—				
Hats, bonnets, and hoods ... dozen	15	405		
All other		99,515		104,701
Glass and glassware:				
Bottles, vials, demijohns, carboys, and jars, plain, green, or colored, ordinarily used as containers, empty or filled		7,211		11,479
Glass bottles, etc., cut or ornamented		1,365		9,829
All other		4,056		8,637

Imports to United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
FROM CHINA—continued.				
Gold and silver, manufactures of, including jewelry:				
Gold and silver, manufactures of		$2,426		$5,099
Jewelry		9,637		17,715
Greases and oils, n. e. s.....pounds	2,650,264	222,962	16,850,367	1,891,768
Hair, and manufactures of:				
Unmanufactured—				
Horse.....do	994,966	509,460	513,582	260,231
Other animal.....do	656,238	95,797	181,073	72,447
Human, uncleaned.....do	319,078	84,535	1,004,607	356,427
Manufactures of—				
Human, cleaned, and manufactured		486,987		580,777
All other		135		1,827
Hats, bonnets, and hoods, and materials for:				
Materials for		1,743,336		3,176,996
Hats, bonnets, and hoods, composed of straw, chip, grass, palm leaf, etc		364,344		74,806
Hides and skins (except fur skins), raw or uncured:				
Buffalo hides—Dry.....pounds	3,472,296	709,212	1,542,981	332,583
Calfskins—				
Dry.....do	1,724,258	582,065	547,513	193,662
Green or pickled.....do	4,090	1,116	968	310
Cattle hides—				
Dry (12 pounds and over).....do	22,483,503	8,006,607	9,324,484	3,457,907
Green or pickled (25 pounds or over).....do	2,600,820	598,647	3,129,955	661,544
Goatskins—Dry.....do	21,340,353	15,105,231	12,106,273	7,469,817
Horse, colt, and ass skins—Dry.....do	1,132,708	235,320	379,561	92,973
Sheep skins—				
Dry.....do	4,835,211	1,521,257	1,983,559	639,376
Green or pickled.....do	26,438	9,132		
All other skins.....do	1,426,565	655,909	1,499,812	567,662
Household and personal effects, and wearing apparel in use, etc		33,590		24,514
India rubber, etc.:				
India rubber, crude.....pounds	2,841	1,863	11,763	5,605
India rubber, scrap, etc.....do			46,661	2,666
Iron and steel, and manufactures of:				
Pig iron.....tons	5,014	68,458	2,601	26,344
Machine tools				9,274
All other manufactures of		13,833		21,458
Ivory, and manufactures of:				
Animals' tusks, etc.....pounds			6,257	9,932
Manufactures of		3,106		1,786
Leather and tanned skins, and manufactures of:				
Leather and tanned skins—				
Goatskins (tanned skins for morocco)		132		4,113
Upper leather—Goat and kid				32,545
All other		13,020		77
Manufactures of—				
Boots and shoes.....pairs	35,778	21,798	25,595	20,842
All other		2,912		1,983
Matting and mats, for floors, of coco fiber, rattan, straw, etc.....square yards	3,946,408	339,903	1,073,593	117,996
Meat products:				
Bacon and hams.....pounds			7,599	1,990
Beef and veal.....do			307,231	29,203
Pork.....do			29,716	2,790
Meats, prepared or preserved		1,889		29,542
Sausage casings		407,854		596,662
All other		46,532		601,412
Metals, metal compositions, and manufactures of, n. e. s		13,248		11,191
Minerals, crude, n. e. s				91,575
Moss, seaweed, etc.:				
Crude and manufactured		5,625		6,902
All other, manufactured or dyed		760		
Musical instruments and parts, etc		1,773		5,122
Oil cake.....pounds	51,700	681	564	32
Oils: Vegetable—				
Expressed—				
Chinese nut.....gallons	6,764,400	3,979,034	4,491,690	3,764,601
Coconut.....pounds	387,589	37,166	1,176,072	130,969
Cottonseed.....do	9,156,433	676,440	9,063,215	1,024,764
Peanut.....gallons	591,274	411,807	3,324,105	2,815,400
Rapeseed.....do	23,604	11,061	166,388	133,959
Soya bean.....pounds	12,911,549	944,938	12,470,720	1,456,172
All other		41,313		152,900
Distilled and essential		13,646		22,608

Imports to United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
FROM CHINA—continued.				
Paints, pigments, colors, etc		$72		$13,449
Paper, and manufactures of:				
Books, music, maps, engravings, etchings, photographs, and other printed matter		38,427		29,943
All other		44,657		24,318
Paraffin (not including oil) pounds	740,723	36,691	448,146	53,771
Pipes and all other smokers' articles		1,416		1,336
Plants, trees, shrubs, and vines:				
Bulbs, bulbous roots or corms, cultivated for their flowers or foliage thousands	1,205	20,963	870	20,616
All other		109		181
Platinum, unmanufactured ounces troy			489	38,207
Precious and semiprecious stones, and imitations of:				
Pearls, and parts of, not strung or set		12,563		4,532
Other precious stones, uncut		295		
Other precious and semiprecious stones, cut, but not set		2,932		20,790
Imitation precious stones		9,319		3,107
Seeds:				
Flaxseed or linseed bushels	118,778	170,451	71,429	118,541
All other		119,361		119,857
Silk, and manufactures of:				
Unmanufactured—				
Cocoons pounds	10,777	8,546	30,990	24,260
Raw, in skeins reeled from the cocoon or rereeled pounds	7,006,700	27,842,932	6,180,480	29.216,586
Waste do	3,593,198	2,130,541	3,569,978	2,568,026
Manufactures of—				
Bandings, beltings, bindings, etc., not over 12 inches in width		30,912		36,096
Fabrics woven in the piece		1,520,555		1,299,621
Laces and embroideries		63,102		80,032
Wearing apparel		67,256		70,660
All other		83,520		103,195
Spices: Unground—				
Cassia, and cassia vera pounds	1,896,394	124,680	1,746,593	92,354
Ginger root, not preserved do	189,419	6,956	197,500	10,018
Pepper, black or white do	630,922	90,112	21,756	3,285
All other do	295,798	31,218	177,611	26,344
Spirits, wines, malt liquors, and other beverages:				
Spirits, distilled proof gallons	120,860	181,413	16,501	24,959
All other		409		27
Starch pounds	438,610	18,033	282,100	14,315
Stone:				
Lithographic, not engraved				32,994
All other		4,668		2,268
Straw and grass, manufactures of		16,018		6,010
Sugar—				
Cane pounds	683,133	32,747	498,259	27,944
Candy and confectionery do	36,134	2,775	26,778	2,141
Tea do	19,810,428	3,109,912	21,082,866	4,361,557
Tea waste, siftings, or sweepings, for manufacturing purposes pounds	1,119,337	112,890	109,327	15,164
Tin in bars, blocks, pigs, or grain or granulated do	4,335,915	1,974,578	3,699,235	2,231,487
Tin ore tons	10	6,788		
Tobacco, and manufactures of:				
Leaf pounds	2,947,026	395,518	4,177,234	996,894
Manufactures of		37,089		88,662
Toys		4,958		8,932
Tungsten-bearing ore tons	50	42,747	759	723,935
Vegetables:				
Beans and lentils bushels	28,699	64,337	13,301	36,052
Onions do	18	15	14,284	27,918
Peas, dried do	27,172	40,579	86,632	184,567
Prepared or preserved—				
Mushrooms and truffles pounds	31,129	17,099	17,574	12,101
Pickles and sauces		55,003		37,012
All other		94,596		84,539
All other in their natural state		32,166		28,013
Vinegar proof gallons	5,812	1,700	2,945	1,183
Waste, n. e. s		1,326		9,570
Wax:				
Beeswax pounds			1,200	378
Vegetable do	366,237	35,744	478,249	44,415

Imports to United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
FROM CHINA—continued.				
Wood, and manufactures of:				
Unmanufactured—				
Rattans and reeds		$52,982		$30,665
All other		20,065		52,128
Manufactures of—				
Baskets of bamboo, wood, straw, etc		33,833		38,498
Chair cane or reed		95,705		103,739
Furniture		25,235		4,143
All other		72,263		66,412
Wool, hair of the camel, goat, alpaca, and other like animals, and manufactures of:				
Unmanufactured—				
Wool of the sheep, hair of the camel, and other like animals—				
Class 1—Clothing pounds	14,781,995	4,214,563	13,226,755	4,160,050
Class 2—Combing do	680,597	243,260	999,658	453,517
Class 3—Carpet do	25,448,769	6,487,390	24,432,434	7,205,509
Hair of the angora goat, alpaca, and other like animals—				
Unmanufactured pounds	454,608	146,895	41,825	13,270
Manufactured				3,960
Manufactures of—				
Carpets and carpeting—				
Carpets and rugs, woven whole square yards	130,581	818,681	113,648	598,717
All other do	1,200	2,538	1,380	7,563
All other		6,615		5,546
Zinc: Ore and calamine contents pounds	58,228	666		
All other articles		96,792		105,817
Total		105,905,531		116,644,981
FROM CHINA: BRITISH LEASED TERRITORY.				
Cotton waste, or flocks pounds	161,702	5,922		
Tea do	57,260	4,726		
Total		10,648		
FROM CHINA: FRENCH LEASED TERRITORY.				
Fibers, etc., unmanufactured tons			12	1,354
India rubber, crude pounds			15,680	6,041
Feathers, etc., natural and artificial				3,580
Hats, etc., materials for				1,442
Total				12,417
FROM CHINA: KIAOCHOW LEASED TERRITORY.				
Bristles, sorted pounds			7,260	4,414
Hair, and manufactures of:				
Human, cleaned and manufactured		1,132		
All other				1,292
Hat materials		22,152		17,110
Oil:				
Vegetable—Expressed—				
Peanut gallons	98,500	82,046	30,000	26,870
Soya bean pounds			74,000	10,811
All other expressed				3,032
All other articles				736
Total		105,330		64,265
FROM CHINA: JAPANESE LEASED TERRITORY.				
Breadstuffs: Rice flour, meal, or broken rice pounds			978,054	24,451
Bristles, sorted, bunched, etc do			1,300	1,625
Coal, bituminous tons	200	800		
Furs and fur skins:				
Undressed				384,478
Dressed on the skin				2,225
Fruits and nuts: Nuts—				
Peanuts—Shelled pounds	100,000	3,396	290,000	14,592
Walnuts—Not shelled do	100,000	6,480		
Hides and skins:				
Goatskins—Dry do	136,800	72,675		
Sheepskins—Dry do			60,370	21,497

Imports to United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
FROM CHINA; JAPANESE LEASED TERRITORY—con.				
Household and personal effects, etc		$300		
Metals		642		
Oil cake ... pounds	1,760,000	16,892		
Oil:				
Chinese nut ... gallons			156,987	$131,136
Peanut ... do			154,604	155,397
Soya bean ... pounds	82.320,382	5.824,067	237,442,917	23,104,484
Expressed oils—All other				46,599
Seeds:				
Castor beans or seeds ... bushels	37,887	60,933	13,436	24,434
All other		14,400		129,296
Shells, and mother-of-pearl				14,643
Vegetables: In natural state		10		
All other articles				823
Total		6,000,595		24,055,680
FROM HONGKONG.				
Agricultural implements, and parts of		1,430		2,250
Antimony: Matte, regulus, etc ... pounds	534,955	61,935	940,880	104,341
Articles the growth, produce, and manufacture of the United States, returned		9,789		6,067
Art works		7,647		51,348
Beads and bead ornaments		7,662		18,197
Bone and horn, manufactures of, including combs		2,081		1,529
Bones, hoofs, and horns, unmanufactured		3,366		4,626
Breadstuffs:				
Farinaceous substances (sago, tapioca, etc.)		13,630		44,359
Macaroni, vermicelli, and all similar preparations ... pounds	115,881	10,742	100,144	13,333
Rice—				
Uncleaned (including paddy) ... do	92,893	2,778	302,800	9,337
Cleaned ... do	27,917,917	748,104	92,440,497	3,332,618
Rice flour, rice meal, and broken rice ... do	21,299,835	401,486	23,394,767	733,338
All other		1,007		1,262
Bristles, not sorted, etc ... pounds			2,000	5,728
Bristles, sorted, bunched, etc ... do	108,957	71,500	162,053	236,576
Brushes, feather dusters, etc		4,878		8,683
Chemicals, drugs, dyes, and medicines:				
Potash, carbonate of ... pounds	38,257	3,967	11,409	1,486
Preparations, medicinal		3,723		8,292
All other		127,148		140,323
Copper, manufactures of, n. e. s		1,696		1,461
Cotton, manufactures of:				
Wearing apparel		6,368		14,049
All other		9,586		22,102
Dice, draughts, etc		1,382		2,460
Earthen, stone, and china ware:				
China—Decorated or ornamented		60,697		80,917
Earthen and crockery ware—Decorated		4,804		6,077
All other		3,086		1,006
Edible substances, n. s. p. f		58,314		85,058
Eggs of poultry ... dozen	159,116	30,734	121,223	29,687
Eggs, dried, frozen, etc., and yolks of ... pounds	2,608	119	942	115
Explosives		37,139		49,515
Fans:				
Common palm leaf ... dozen	96,027	14,638	381	69
All other		4,990		5,730
Feathers, crude		22,869		125,866
Fertilizer		212		
Fibers, vegetable and textile grasses, and manufactures of:				
Unmanufactured ... tons	134	31,572	1,054	276,069
Manufactures of—				
Laces, embroideries, etc		21,406		23,679
Wearing apparel		3,246		10,683
All other		1,971		4,514
Fish:				
Cured or preserved—				
Fish (except shellfish), packed in oil		17,442		23,243
All other		43,950		81,548
Shellfish—Shrimps and other shellfish and turtles		84,933		97,336
All other		32,388		661

Imports to United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
FROM HONGKONG—continued.				
Fruits and nuts:				
Fruits—				
Dates ... pounds	41,202	$2,866	36,930	$4,091
Olives ... gallons	10,833	5,412	8,834	5,635
Fruits, preserved		74,489		90,516
All other		10,215		9,299
Nuts—				
Almonds—Shelled ... pounds	10,286	2,041	13,023	3,232
Coconuts, in the shells		14,292		
Coconut meat, broken, or copra—				
Not shredded or prepared ... pounds	47,291	3,052		
Shredded, desiccated, or prepared ... do	149,394	10,027	281,080	32,593
Peanuts—				
Not shelled ... do	195,946	8,301	113,042	4,749
Shelled ... do	6,201,755	273,464	7,910,520	500,768
Walnuts—Not shelled ... do	120,000	10,200	25,066	2,159
All other		49,253		43,588
Furs and fur skins undressed		104		4,280
Glass and glassware:				
Bottles, vials, etc., empty or filled		10,021		3,290
Bottles, decanters, and other glassware, cut or ornamented		4,330		10,321
All other		2,185		4,334
Gold and silver, manufactures of, including jewelry:				
Gold and silver, manufactures of		3,076		9,144
Jewelry		10,912		13,689
Hair, and manufactures of:				
Unmanufactured—				
Horse ... pounds	7,901	4,488	1,788	3,010
Human, uncleaned ... do	265,360	119,124	576,332	214,231
Manufactures of—				
Human, cleaned and manufactured		1,504		1,642
All other				1,389
Hats, bonnets, and hoods, and materials for		209		11,452
Hides and skins (except fur skins), raw or uncured:				
Buffalo hides—Dry ... pounds	45,963	15,553	472,244	166,509
Calfskins—Dry ... do	156,055	41,519	374,766	141,800
Calfskins, green or pickled ... do			16,224	3,210
Goatskins—Dry ... do	1,000	1,339	5,048	3,764
Sheepskins—Dry ... do	1,000	1,250	24,357	23,907
Cattle hides—Dry (12 pounds and over) ... do	240,985	65,262	288,721	89,818
All other ... do	1,183	883	147,815	75,684
Household and personal effects, etc		16,590		3,152
India rubber, etc., unmanufactured:				
India rubber ... pounds	197,845	163,182	324,703	208,252
India rubber, scrap ... do	33,000	1,233		
Iron and steel, manufactures of:				
Cutlery		2,389		2,928
Tinplate scrap ... pounds	414,800	2,666		
All other		3,820		6,324
Ivory, manufactures of		2,025		1,882
Leather, manufactures of		7,759		3,332
Matting, etc., for floors, of coco fiber, rattan, straw, etc ... square yards	283,851	27,236	100,427	11,566
Meat and dairy products:				
Meats, prepared or preserved		4,289		43,406
Sausage casings		1,774		5,685
Other meat products		67,808		68,832
Dairy products, butter, etc ... pounds	511	164	12,580	1,518
Metals		4,004		4,908
Moss, seaweeds, and vegetable substances, n. e. s		5,056		7,168
Musical instruments		9,651		5,021
Oils: Vegetable—				
Expressed—				
Chinese nut ... gallons	28,386	23,631	110,602	102,860
Peanut ... do	220,586	146,364	91,354	111,013
All other		3,627		7,064
Distilled and essential		268,093		197,483
Paper, and manufactures of:				
Books, engravings, and other printed matter		3,940		5,453
All other		21,877		27,761
Perfumery, cosmetics, etc		1,387		1,105
Plants, trees, shrubs, etc.:				
Bulbs, bulbous roots, etc ... thousands	241	11,968	173	11,567
All other		55		22

Imports to United States.	Year ended June 30—			
	1917		1918	
	Quantity.	Value.	Quantity.	Value.
FROM HONGKONG—continued.				
Precious and semiprecious stones:				
Pearls and parts of, not strung		$8,768		$110
Other precious stones, cut but not set		11,921		308
Imitation precious stones		5,808		842
Seeds:				
Castor beans or seeds ... bushels			4,295	13,479
Grass ... pounds	35,100	3,686		
All other		6,909		43,195
Shells, unmanufactured				17,023
Silk, and manufactures of:				
Unmanufactured—Waste ... pounds	59,000	38,635	278,654	223,353
Silk, raw, in skeins, etc ... do	1	2	1,499	12,219
Manufactures of—				
Fabrics woven in the piece		14,320		13,597
Laces, embroideries, etc		25,190		46,772
Wearing apparel		61,289		67,868
All other		23,421		40,274
Spices: Unground—				
Cassia and cassia vera ... pounds	3,622,478	277,917	2,938,742	226,836
Ginger root, not preserved ... do	133,489	5,441	200,953	15,786
Pepper, black or white ... do	416,506	64,501	1,411,065	217,103
All other ... do	86,856	10,243	187,450	18,022
Spirits, distilled:				
Cordials ... proof gallons	3,961	4,265	2,523	3,844
All other ... do	72,620	88,869	23,773	39,146
Straw and grass, manufactures of		31,367		18,024
Sugar:				
Cane ... pounds	336,736	16,564	124,522	7,841
Sugar candy and confectionery ... do	47,642	3,327	48,637	3,858
Tea ... do	740,396	159,460	497,240	151,592
Tin in blocks, bars, etc ... do	5,071,319	2,070,908	13,523,832	7,769,260
Tobacco, and manufactures of:				
Leaf ... do	506,882	87,141	762,677	197,692
Manufactures		31,816		44,170
Tungsten-bearing ore ... tons		150	242	214,266
Vegetables:				
Beans and lentils ... bushels	12,192	21,634	17,609	44,639
Prepared or preserved—				
Mushrooms and truffles ... pounds	35,924	21,035	35,448	27,060
Pickles and sauces		77,199		83,913
All other		191,699		159,303
All other in their natural state		61,675		76,040
Wood, and manufactures of:				
Unmanufactured—				
Logs and round timber ... thousand feet	51	5,661		
Rattans and reeds		19,014		25,066
All other		43,055		69,643
Manufactures of—				
Baskets of bamboo, wood, etc		34,599		26,860
Chair cane or reed		113,332		79,762
Furniture		74,404		16,761
All other		41,957		33,525
Wool, hair of the camel, etc., manufactures of:				
Carpets and rugs woven whole ... square yards	408	2,506	1,257	2,855
All other		247		60
Zinc ore and calamine ... zinc contents ... pounds	4,480,860	154,000		
All other articles		76,057		52,363
Total		7,512,396		18,086,274
Grand total		119,534,500		158,863,617

The following table shows the imports to the United States from China during the fiscal year 1914:

Imports to United States.	Year ended June 30, 1914. Quantity.	Year ended June 30, 1914. Value.
FROM CHINA.		
Antimony—Ore, matte, regulus, or metal (antimony contents), pounds.	3,728,859	$165,952
Articles, the growth, produce, and manufacture of the United States, returned		28,400
Art works		63,938
Breadstuffs:		
Rice, cleaned...pounds..	30,417,603	864,736
Rice flour, rice meal, and broken rice...pounds..	6,625,665	118,856
All other		65,534
Bristles, sorted, bunched, or prepared....pounds..	1,410,373	934,211
Chemicals, drugs, dyes, and medicines		640,354
Cotton, and manufactures of:		
Unmanufactured, pounds	9,169,686	1,035,618
Manufactures of		45,892
Earthen, stone, and china ware:		
China, porcelain, etc.—		
Decorated		43,044
All other		1,319
Eggs...dozen..	1,895,618	234,438
Eggs, yolks of, and frozen, pounds	347,865	26,965
Explosives—Firecrackers, gunpowder, etc		202,819
Fans, common palm-leaf, dozen	582,884	53,982
Feathers, etc., natural and artificial		60,614
Fibers, vegetable, etc., and manufactures of:		
Hemp...tons..		....
Jute, and jute butts, tons	844	70,315
All other unmanufactured...tons..	74	11,669
Manufactures of		11,190
Fish		71,225
Fruits and nuts:		
Fruits		28,963
Nuts—		
Peanuts—		
Not shelled, pounds.	2,132,338	66,401
Shelled...do....	3,589,879	132,801
Walnuts—		
Not shelled....do....	4,011,543	185,693
Shelled...do....	233,892	17,743
All other		12,102
Furs and fur skins:		
Undressed		58,915
Dressed on the skin		487,001
Manufactures of		227,633
Grease and oils, n. e. s., pounds	3,363,937	190,834
Hair, and manufactures of:		
Horse hair.....pounds..	143,368	119,763
Other animal......do....	10,000	1,248
Human, uncleaned, pounds	167,290	60,370
Human, cleaned, and manufactured		824
All other manufactures of		....
Hats, bonnets, and hoods, and materials for:		
Materials for		109,604
Hats, etc., of straw, chip, grass, osier, etc		12,303
FROM CHINA—continued.		
Hides and skins (except fur skins), raw or uncured:		
Buffalo...pounds..	87,463	$12,258
Calf and kip...do....	277,059	73,686
Cattle—		
Dry...do....	6,563,503	1,758,970
Green or pickled.do....	1,290,538	192,189
Goat...do....	7,304,761	2,126,706
Horse, colt, and ass, pounds	71,223	12,910
Sheep...pounds..	477,953	89,678
All other...do....	314,430	51,185
Household and personal effects		40,865
Iron and steel, and manufactures of:		
Pig iron...tons..	3,217	57,738
All other		2,041
Matting and mats for floors of cocoa fiber, rattan, or straw, etc. square yards..	9,946,532	618,766
Meat products:		
Meats, prepared or preserved		18,189
Sausage casings		22,287
All other		33,395
Oils:		
Vegetable—		
Coconut......pounds..	412,633	29,696
Cottonseed......do....	9,682,248	512,382
Nut oil, or oil of nuts, n. e. s.—		
Chinese nut, gallons.	4,899,984	1,943,400
Peanut...do....	100,816	66,445
Soya bean....pounds..	5,983	363
All other		24,661
Seeds		17,856
Silk, and manufactures of:		
Cocoons...pounds..		....
Raw, in skeins, etc., pounds	5,926,745	15,918,730
Waste...pounds...	1,533,879	805,888
Fabrics woven in the piece		120,189
Laces and embroideries..		75,138
Wearing apparel		39,844
All other manufactures of		24,908
Spices:		
Cassia and cassia vera, pounds	4,559,398	169,327
All other......pounds..	470,655	36,418
Spirits, wines, malt liquors, and other beverages:		
Spirits, distilled, proof gallons	111,166	113,368
All other		....
Sugar—Cane.....pounds..	821,337	23,584
Tea...do....	20,139,342	2,755,512
Vegetables:		
Prepared or preserved...		86,967
All other		54,606
Wood, and manufactures of:		
Rattans and reeds		35,558
All other unmanufactured		22,477
Manufactures of		89,523
Wool, etc., and manufactures of:		
Class 1—Clothing wool, pounds	108,800	15,902
Class 3—Carpet wool, pounds	29,894,054	4,428,367

Imports to United States.	Year ended June 30, 1914.	
	Quantity.	Value.
FROM CHINA—continued.		
Wool, etc., and manufactures of—Continued.		
Hair of the Angora goat, alpaca, etc...pounds..	6,739	$3,172
Carpets and carpeting, square yards	15,138	75,157
All other manufactures of		3,309
All other articles		256,099
Total		39,382,978
FROM CHINA: KIAOCHOW LEASED TERRITORY.		
Bristles, sorted, bunched, or prepared.....pounds..	120,860	84,410
Chemicals, drugs, dyes, and medicines		992
Fruits and nuts:		
Nuts—		
Peanuts, shelled, pounds..	949,225	31,524
All other		515
Hats, bonnets, and hoods, and materials for		438,489
Hides and skins (except fur skins), raw or uncured:		
Calf, dry........pounds.	7,603	2,028
Cattle.............do....	208,187	36,411
Household and personal effects		1,960
Oils—Vegetable, expressed—Soya bean ......pounds..	118,909	3,909
All other		
Silk, manufactures of—Fabrics, woven in the piece		17,062
All other articles		21,173
Total		638,473
FROM CHINA: JAPANESE LEASED TERRITORY.		
Articles the growth, produce, or manufacture of the United States, returned		1,020
Bristles, sorted, bunched, or prepared.....pounds..		
Oils—Vegetable, expressed—Soya bean..pounds..	6,150,000	288,320
Seeds		549
All other articles		
Total		289,889
FROM HONGKONG.		
Antimony—Matte, regulus, or metal....pounds..	571,933	24,685
Breadstuffs:		
Rice—		
Uncleaned (including paddy).....pounds..	576,525	17,415
Cleaned..........do....	4,189,440	130,573
Rice flour, rice meal, and broken rice, pounds	3,226,591	62,864
All other		20,947
Bristles, sorted, bunched, or prepared.....pounds..	61,719	25,495
Chemicals, drugs, dyes, and medicines		68,852
Earthen, stone, and china ware:		
China, porcelain, parian, etc.—Decorated		35,715
All other		1,814
FROM HONGKONG—con.		
Edible substances		$36,783
Explosives		22,871
Feathers, etc., natural and artificial:		
Feathers and downs, crude		77,846
All other		1,048
Fish:		
Cured or preserved—		
Fish (except shellfish), packed in oil		13,755
All other		51,387
Shrimps, and other shellfish and turtles		48,736
Fruits and nuts:		
Fruits—		
Fruits, preserved		27,833
All other		12,496
Nuts—		
Peanuts—		
Not shelled.pounds..	1,622,148	49,477
Shelled........do....	2,795,091	110,680
All other		35,022
Hair, human, uncleaned, pounds	104,972	51,557
Hats, bonnets, and hoods, and materials for		24,291
Mattings and mats, for floors, etc.square yards..	353,741	21,096
Meat products:		
Meats, prepared or preserved		42,232
All other meat products		45,238
Oils—Vegetable:		
Expressed—		
Peanut.......gallons..	93,125	57,025
All other		11,211
Distilled and essential		79,781
Silk, and manufactures of:		
Raw, in skeins, etc., pounds	7,211	25,048
Waste..........pounds..	13,333	15,000
Wearing apparel		28,222
All other manufactures of		24,702
Spices—Unground:		
Cassia and cassia vera, pounds	796,408	90,641
All other.......pounds..	354,052	25,471
Spirits, distilled, proof gallons	91,884	86,652
Straw and grass, manufactures of		41,768
Tea..............pounds..	567,535	96,899
Tin, in bars, blocks, pigs, or grain, etc....pounds..	2,270,220	855,803
Tobacco and manufactures of		29,798
Vegetables:		
Prepared or preserved—		
Pickles and sauces		41,980
All other		85,196
All other, in their natural state		59,007
Wood and manufactures of:		
Rattans and reeds		6,381
All other unmanufactured		15,371
Furniture		89,055
All other manufactures of		38,148
Zinc—Ore and calamine (zinc contents)..pounds.		
All other articles		221,973
Total		3,085,840
Grand total		43,397,180

As will be seen from the foregoing figures, exports from the United States to China increased from $37,042,298 in the fiscal year 1914 to $55,889,380 in 1917, $69,773,086 in 1918, and $117,217,179 in 1919. American purchases of Chinese goods show a very much larger increase—from $43,397,180 in 1914 to $119,534,500 in 1917 and to $158,863,617 in 1918. In the fiscal year 1919, however, American imports from China registered a slight decrease—to $154,385,806.

STATISTICS OF SHIPPING.

The following table shows the number and tons of the vessels of each nationality entered and cleared at the Chinese Maritime Customs during the years 1914 to 1918:

Flag.	1914		1915		1916	
	Number.	Tons.	Number.	Tons.	Number.	Tons.
American	3,133	1,047,422	3,148	804,414	3,082	799,913
Austrian	51	174,233	....	....	....	....
British	32,951	39,266,765	33,339	37,675,657	34,132	35,840,573
Danish	100	139,526	82	115,628	115	206,734
Dutch	276	398,271	287	496,664	233	463,996
French	520	898,644	537	561,955	409	596,237
German	3,906	4,026,493	979	58,263	1,151	66,532
Italian	....	....	....	....	57	979
Japanese	22,407	23,996,972	20,141	23,873,016	21,598	24,233,835
Norwegian	692	771,235	726	774,873	472	636,217
Portuguese	1,748	311,696	784	152,021	440	129,478
Russian	4,035	1,954,925	4,873	1,922,055	3,790	1,545,085
Swedish	15	40,985	26	69,450	34	101,948
Nontreaty powers	....	....	....	....	2	1,466
Chinese shipping[a]	42,617	18,628,456	43,282	18,655,411	45,552	18,460,533
Chinese junks[b]	108,140	6,328,590	98,683	5,503,598	90,949	4,936,576
Total	220,591	97,984,213	206,887	90,663,005	202,016	88,020,101

Flag.	1917		1918	
	Number.	Tons.	Number.	Tons.
American	3,609	1,125,155	3,119	1,214,921
Austrian	....	....	....	....
British	34,902	33,576,217	31,034	29,911,369
Danish	83	142,238	86	86,847
Dutch	374	712,439	416	575,757
French	328	584,891	365	230,223
German	233	17,054	....	....
Italian	478	14,912	464	28,796
Japanese	22,454	24,581,647	24,961	25,283,373
Norwegian	370	474,349	191	257,669
Portuguese	456	199,438	172	60,350
Russian	3,276	1,429,200	1,949	795,529
Swedish	10	26,692	8	20,168
Nontreaty powers	....	....	....	....
Chinese shipping[a]	46,422	18,517,957	43,638	16,984,523
Chinese junks[b]	100,478	5,504,860	87,164	4,798,181
Total	213,473	86,907,049	193,567	80,247,706

[a] Vessels of foreign type owned by Chinese and sailing under the Chinese flag.

[b] Vessels of Chinese type built and owned by Chinese, entered and cleared at the Maritime Customs.

CANTON CONSULAR DISTRICT.

By Consul Paul R. Josselyn.[1]

LOCATION AND AREA.

The Canton consular district comprises the four southeastern Provinces of China and is situated, roughly speaking, between parallels 22° and 28° north latitude. From the standpoint of latitude it thus corresponds to the north-central portion of Mexico, the north-central part of the Desert of Sahara, and north-central India and northern Burma. The district is bounded on the north by the Provinces of Szechwan, Hunan, Kiangsi, and Fukien; on the west, by British Burma; and on the south by Tongking, the Gulf of Tongking, and the South China Sea. The four Provinces comprising the district are Kwangtung (except the northeastern part east of longitude 115°, which is within the Swatow consular district) and the whole of the Provinces of Kwangsi, Yunnan, and Kweichow. The area of the district is 391,120 square miles, as follows: Kwangtung Province, 100,000 square miles; Kwangsi Province, 77,220 square miles; Yunnan Province, 146,718 square miles; Kweichow Province, 67,182 square miles. It is, therefore, about six times as large as the New England States, or about equal to the combined areas of Texas and New Mexico.

POPULATION.

It is virtually impossible to calculate accurately at the present time the population of the various Provinces in China. No census along the lines followed in the United States and Europe has ever been taken, but, on the basis of statistics that have been collected and that may be considered fairly trustworthy, the population of Kwangtung[2] is given as 32,000,000; Kwangsi, 5,142,000; Kweichow, 7,650,000; and Yunnan, 12,721,000.

Kwangtung is much the most populous Province in the district, having a population per square mile of 318 people, or about the same density as the State of New Jersey. By far the larger part of the people live in what is known as the Canton Delta, a very rich and well-watered district, intersected by innumerable streams, which provide excellent means of communication.

The 3 other Provinces of this district are among the most sparsely populated of any of the 18 Provinces of China. Kweichow has a population of 114 per square mile and Yunnan 86 per square mile, while Kwangsi has only 66 per square mile. The average density of population throughout the district is 146 per square mile, or about five times the average density of population for the United States.

The native population is composed of a great many different elements. The principal element is what is known as the Cantonese.

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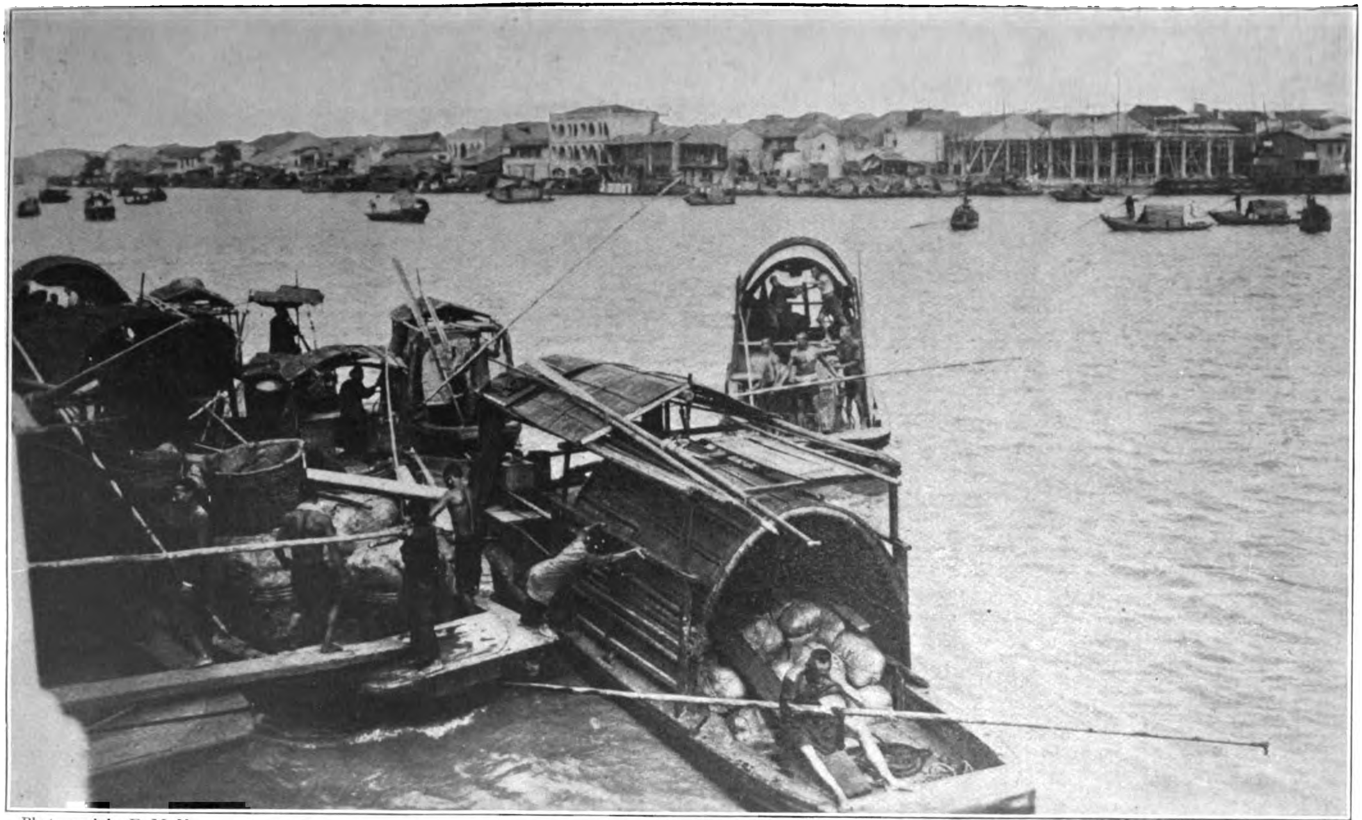
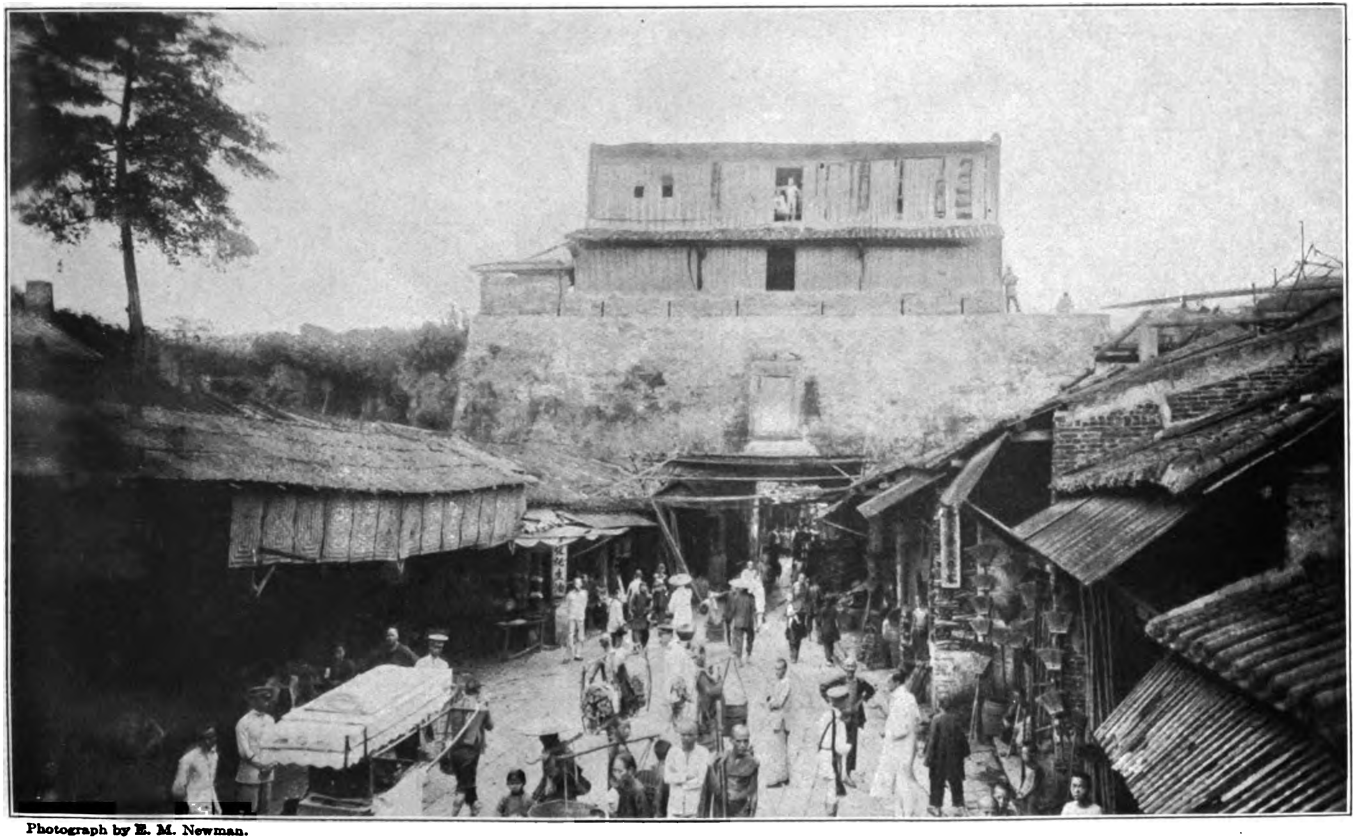
[1] Consul Josselyn, who is now stationed at Chungking, was vice consul (in charge) at Canton at the time of the preparation of this report.

[2] See also the table on p. 17 and the second footnote on p. 18.



Photograph by E. M. Newman.

FIG. 2.—SCENE ON PEARL RIVER, CANTON.



Photograph by E. M. Newman.

FIG. 3.—WATER GATE, CANTON.

The Cantonese form considerably more than half of the population of Kwangtung Province and live particularly in the Canton Delta. They have also penetrated into Kwangsi, Kweichow, and Yunnan, where they are the most active and shrewd merchants. The "Hakkas" very probably came originally from Fukien Province and the north. At present they are to be found chiefly in the northeastern portion of the Province of Kwangtung, although they have penetrated throughout the whole of Kwangtung, where they have intermingled with the Cantonese. They are not as shrewd merchants as the Cantonese, but are of stronger physique. In the vicinity of Canton are also to be found the "Tung-kas," or "cave-dwellers." These form for the most part what is known as the boat population of Canton and vicinity. They live altogether on their boats and are looked down upon by the Cantonese. There are also to be found several aboriginal tribes scattered throughout the district, whose manners, customs, and character are in no wise connected with those of the Chinese. Some of the principal tribes are known as the "Lolos," the "Miaotzes," and the "Sais" or "Sis." The latter are principally in the island of Hainan.

PHYSICAL FEATURES.

By far the greater part of the region comprising this district is mountainous in character. The highest mountains are on the west, in the Provinces of Yunnan and Kweichow. These are an extension of the Tibetan and Himalayan Ranges. In western Yunnan these mountain ridges are high but narrow and are separated by deep gorges, at the bottom of which are mountain torrents. Many passes in these mountains attain an altitude of 11,000 feet. The Yangtze River for a long way forms the northern boundary of Yunnan, separating that Province from Szechwan. The northern part of Yunnan Province is low, damp, and unhealthful and is interspersed with peaks and gorges. It is very sparsely inhabited. The Yangtze River in this part of its course is called the "Kinsha-kiang," or "Golden-Sand River," and is merely a torrent hemmed in between high mountains, which at times exceed 16,000 feet in elevation. In all this district it and its branches are unsuitable for navigation. The eastern part of Yunnan is a vast table-land, varying in elevation from 6,500 to 9,800 feet and sloping gradually toward the east. In this region are also numerous rocky peaks; many of these are covered with fir trees, but others are denuded and barren. Here also are many marshes, lakes, and rivers. The temperature is mild and pleasant, and the population is concentrated chiefly in the valleys and near the lakes. Yunnanfu is the capital of the Province and is situated in this table-land. Before the Mohammedan Rebellion it was a much more populous city than at present. From this place radiate numerous highways communicating with the other parts of the Province.

In appearance the Province of Kweichow is very similar to Yunnan, being a large table-land covered with mountains and peaks. These are highest in the southwestern part, the valleys lying at an elevation of 5,000 to 6,500 feet, while the summits rise to 8,000 to 9,000 feet. The mean altitude of the table-land is about 4,200 feet. Limestone is the predominant rock. Here and there it underlies alluvial basins of recent formation or is veined by seams of porphyry and granite.

Schist and red sandstone are also frequently encountered. On account of its mountainous character, communication is more difficult in Kweichow than in any other Province in China. The soil is exceedingly poor, and, although its mineral deposits are great, they are almost totally neglected. It is perhaps one of the poorest Provinces in China. The principal river in this Province is the Sikiang, or West River, which bounds the Province on the south. It is, however, scarcely navigable in this part of its course and flows between high hills of sandstone. It is obstructed by many rapids and rocks. Farther to the southeast, in the Province of Kwangsi, it forms the principal river, flowing southeast.

The physical characteristics of Kwangsi are similar to those of Kweichow, this Province also being mountainous and sparsely settled. It is, however, very well irrigated. The population is chiefly in the east and southeast.

Kwangtung, which is the most important Province in this consular district and the only one with any seacoast, is also for the most part a mountainous region. It has, however, a large plain extending over the delta of the West River and the lower part of the North River, and this part of the Province is by far the most thickly populated and the richest. The whole Province is very well watered and is provided with excellent means of communication through its rivers, numerous canals, and coast line. Along the coast are many islands; the largest of these is Hainan, and the most important from the commercial point of view is Hongkong.

The island of Hainan is 185 miles long by 120 broad and has an area of 13,900 square miles. The whole region is very mountainous, and there are peaks rising to an elevation of 5,000 feet. The mountains are rich in mineral resources, and the valleys and lowlands are exceedingly fertile. The coast is inhabited by Chinese, the aboriginal tribes living in the uplands of the interior. The chief city of the island is Kiungchowfu.

The island of Macao, which is situated at the extreme end of the West River delta, was settled by the Portuguese in 1557 and was, during the seventeenth and eighteenth centuries, a great trading center between China and Europe. However, since the cession of Hongkong to Great Britain in 1842, the trade of Macao has steadily declined.

Kwangchow, a bay on the Kwangtung coast, was leased to France in 1898 for 99 years. It is, however, without much importance commercially.

The capital and principal city of the Province is Canton, which is built on the banks of the Chu-kiang, or Pearl River. Up to 60 years ago it enjoyed a monopoly of the Chinese commerce with foreign nations. Since the rise of the port of Hongkong and the opening up of other treaty ports in China its importance has diminished, but it is still a very large manufacturing and commercial city. Large steamers are unable to reach Canton, but anchor at Whampoa, about 10 miles farther downstream.

CLIMATE.

The climate of Kwangtung is very changeable and depends on the dry northeast wind or the moisture-laden southwest wind. From October to April the former prevails, and in the neighborhood of

Canton seldom causes the temperature to fall below 35° F. The rainy monsoon occurs during the summer months. Though the temperature in summer seldom rises to 100° F., the moisture-laden atmosphere makes the heat very oppressive. The average annual rainfall during the past few years for Canton and vicinity has been about 80 inches.

The climate of Kwangsi is tropical in the south, where the heat is excessive from May to September. This heat is moist and occasions much sickness. The climate is more temperate in the north, but there are sudden changes of temperature and the cold is severe in winter. In the southern valleys the thermometer never falls below 37° F. and rises in summer to 100° and sometimes to 104°.

The climate of Kweichow is very moist, and dense fogs prevail throughout the whole Province, but particularly in the deep valleys of the south. Here during the five winter months, from October to February, there are rarely more than 25 days of fine weather. The climate is also very changeable. In summer the thermometer rarely reaches 86° F. on the table-lands, while in winter it falls to 18°.

In lower Yunnan Province there are continuous fogs and rainfall every day. At the bottom of the valleys the climate is tropical, suffocating, and insalubrious. On the high table-lands in the northern part of the Province the air is pure and the temperature mild and agreeable. The thermometer reaches 80° to 85° in the summer, but seldom falls below 32° in the winter. The dry season extends from the end of September to the middle of May, and the wind then blows from the southwest. The rainy season is from the middle of May to the end of September. The dampness, however, is not excessive.

POLITICAL SUBDIVISIONS.

Each of the Provinces in the Canton consular district is presided over by a military governor, or "Tu-chun," who is directly in charge of the military affairs of the Province. There is also a civil governor, or "Sheng-chang," who has charge of the civil affairs of the Province. The "Lu-chun," or regular army, is under the control of the military governor, while the "Ching Wei Chun," or Guards, are under the control of the civil governor. At the present time, in Kwangtung Province, the forces under the command of the civil governor are almost equal in number to the regular army under the military governor. These officials are both appointed by the central Government at Peking.

The conduct of foreign affairs is in charge of an official appointed by the President of China but recommended by the Board of Foreign Affairs. There is at present a commissioner of foreign affairs at Canton, one at Pakhoi, one at Swatow, one at Kiungchow, in Hainan—all in Kwangtung Province—and also one at Wuchow, in Kwangsi Province, and one at Yunnanfu, in Yunnan Province. This official, in addition to his duties as commissioner of foreign affairs, also usually acts as superintendent of Maritime Customs.

Directly under the civil governor is the provincial secretary, or "Cheng Wu Ting Chang," who acts as the mouthpiece of the governor, and through whom all official communications to the governor must pass.

Other provincial officials are the commissioner of finance, the commissioner of police (having charge of all the police in the district), the secretary of the interior, the secretary of industry, and the secretary of education.

Each Province is divided into a certain number of circuits, or "Tao." Each of these subdivisions is presided over by an official called the "Taoyin," or intendant of circuit. The Taoyin is responsible for the condition of his circuit, and makes his report either to the governor at the capital of the Province or, in some exceptional cases, directly to the central Government at Peking. Each circuit is further subdivided into a number of districts, or "hsien," each one of which is presided over by a district magistrate. These officials are appointed by the high provincial authorities, but must be confirmed by the central Government. The district magistrate is the chief authority in the district and has both executive and judicial authority.

The numbers of circuits and districts in the four Provinces are as follows: Kwangtung, 6 circuits, 94 districts; Kwangsi, 6 circuits, 77 districts; Yunnan, 4 circuits, 96 districts; Kweichow, 3 circuits, 80 districts.

EDUCATION.

The old-style literary examination system was abolished in September, 1905. Since that time the educational policy of the Government has undergone many variations. Immediately following the abolition of the old-style examination system there was a great enthusiasm for popular education of a new style, particularly in South China, where a great many temples were dismantled, temple and monastery funds being diverted to educational purposes. In addition, some modern school buildings were erected and a considerable amount of school apparatus was obtained, principally from Japan. A great many schools were opened, and an elaborate curriculum was prepared on paper, but unfortunately there were not nearly enough teachers to impart the new knowledge. This burst of enthusiasm rapidly cooled, and then a considerable reaction set in. Riots took place when the tax collectors and census enumerators appeared to collect funds for the schools. The temple priests protested vigorously against the use of the temples for school purposes, and these protests met with much popular approval. Upon the outbreak of the revolution in 1911, a very large number of schools were closed and education was considerably neglected. Upon the restoration of peace after the revolution and the establishment of the Republican Government, there was a revival of popular enthusiasm in favor of western education. A number of schools were reopened. Particular attention was paid to the establishment of primary and secondary schools. Lectureships were established by the commissioner of education in all the district cities of Kwangtung Province, the object of these lectures being to give the common people who were too old to go to school a glimpse into some of the phases of the new learning. Also, a number of students were sent abroad at the expense of the Government.

Since the second revolution of 1913, a considerable setback has been given to Government education. The office of the commissioner of education was abolished and a secretary of education was appointed, whose office was in the Yamen of the civil governor. Outside of the principal cities of the Province, there is a tendency to go back to the old forms of instruction. In many of the primary schools learning derived from foreign countries is either discarded or put into an inferior position.

The course of instruction provided by the Government schools is as follows:

First comes the primary school, covering a period of four years, followed by the secondary school of three years. These are supposed to conform in general to the grade schools in the United States. The study of Chinese as a language, as literature, and as history takes up the greater part of the time, though arithmetic, geography, rules of conduct, some nature study, and some elementary science are also given.

Following the secondary school comes the middle or high school, which gives a four-year course. The last year in this school is about two or three years below the corresponding year in an American high school.

The proportion of the population able to read and write is relatively higher among the Cantonese than among the inhabitants of most other Provinces in China. In Canton itself a large proportion even of the lower classes are able to read and also to write. However, among the boat people of Canton, who, as has been mentioned, are quite separate from the Cantonese, the proportion of illiteracy is exceedingly large, as it is also among the inhabitants of Kwangsi and Kweichow. The percentage of women of all classes who can read and write is relatively much smaller than in the case of men, and this may be said to be true of the entire country.

SCHOOLS IN KWANGTUNG.

The number of elementary schools (primary and secondary) in Kwangtung Province under Government supervision is 4,100, with a total enrollment of 123,000 students. There are also 46 middle schools in the Province, of which 11 are in Canton. Other schools are: Normal schools, 9; law schools, 9; agricultural schools, 3; silk-culture schools, 1; industrial schools, 5; commercial schools, 5.

There are 658 mission schools in Kwangtung, with 928 teachers and a total enrollment of 22,483 pupils. Of these, 53 are boarding schools for boys and 43 boarding schools for girls, with 4,256 and 2.147 students, respectively. There are 7 middle schools for boys, with an enrollment of 400 students. There is no school of college grade in the Province except the Canton Christian College. There is only one mission normal school in the Province—that of the Basle Mission at Kuchek, with 48 students.

There is a Presbyterian Training School for kindergarten teachers in Canton and a Baptist Training School for primary teachers at Tungshan, Canton.

The mission schools are gradually evolving a unified system and are cooperating in a Kwangtung Educational Association. As yet the vast number of students do not aim very high, only a small number graduating from middle schools. There were only about 40 graduates from mission middle schools in 1914.

The Canton Christian College is the oldest and best developed school under mission auspices. The college now owns about 100 acres of finely located land situated on the Pearl River about 2 miles below Canton, which contains 18 permanent buildings as well as a number of temporary structures. The value of this property is about $300,000 United States currency. The enrollment at present is as follows: Kindergarten and primary school, 114; grammar school (three years), 146; high school (5 years), 180.

There are four divisions of Kwangtung as regards the work of the Catholic missions: (1) That under the French Bishop of Canton; (2) that under the Portuguese Bishop of Canton; (3) that under the Italian bishop residing in Hongkong; (4) that under the French bishop residing at Swatow. Altogether these missions have 67 schools for boys and 39 for girls.

In addition to the above, there are a number of private schools in the Province, about which very little information is obtainable. The number of private tutors in the city is about 1,200.

EDUCATION IN YUNNAN PROVINCE.

The development of education in Yunnan Province, considering the poverty and the scarcity of population, has been somewhat more rapid than that in the richer neighboring Province of Kwangtung. There are at present approximately 5,000 schools of all grades in the Province under Government control, with a total enrollment of 200,000 pupils. There are nine middle schools located in the larger cities of the Province, with 2,000 students. There are seven normal schools for boys, with 1,477 students, and two normal schools for girls, with 300 students. At the capital of the Province, Yunnanfu, there are located the following: One law school, 510 students; one commercial school, 143 students; one agricultural school, 412 students; one mining school, 305 students; three manual training schools, 235 students; one military school, 200 students.

Missionary education in Yunnan is not carried on to the extent that it is in Kwangtung. The China Inland Mission has about 13 schools with about 400 students. The Methodist Mission at Chiotung has a school with about 300 students, which is the largest Protestant mission school in the Province. There are also in the Province a number of schools under Catholic supervision. At Yunnanfu the French Government supports a school for boys with 120 students and one for girls with 80 students. A similar school for boys is located at Mengtsz. These three schools are supported by grants from the Government of Indo-China.

EDUCATION IN KWANGSI AND KWEICHOW PROVINCES.

Government schools similar to those in Kwangtung and Yunnan are established in Kwangsi and Kweichow Provinces, there being about 1,400 elementary schools with 60,000 students in Kwangsi and 1,050 schools with 42,500 students in Kweichow. In Kwangsi there are also 23 middle schools, two normal schools, and one agricultural school. Missionary work is carried on in these two Provinces along the lines indicated above.

EXTENT OF USE OF MODERN SCHOOL SUPPLIES AND HOSPITAL EQUIPMENT.

There is at present small demand for modern imported school supplies and apparatus except in schools and colleges under missionary supervision. The Chinese are adepts at woodworking, and furniture, blackboards, and other equipment can be manufactured locally much more cheaply than these supplies can be obtained from abroad.

As a rule, the hospitals are equipped with as much modern apparatus as their means will permit. At best, however, they are inadequately furnished in this particular.

The use of modern school and laboratory apparatus and supplies is certain to increase if the Government schools are placed on a more modern and up-to-date basis. Heretofore most of these goods have come from Japan, which has built up a considerable trade in this class of goods all over China, particularly in scientific and demonstration apparatus to be used in the laboratory and classroom.

AGRICULTURE.

A very large part of the Canton consular district, being mountainous, is not available for agricultural purposes, but the plains and valleys—particularly the rich and fertile regions of the Canton delta—are cultivated to the utmost extent possible.

The farmers of South China, like those in the other parts of the Republic, do not live in isolated farmhouses as do the farmers in America; on the contrary, they live together in villages and go out each morning to cultivate the fields, returning in the evening.

Taking an average for the four Provinces, it is found that about 50 per cent of the land holdings are less than 20 mow in extent (a mow or Chinese acre equals one-sixth of the American acre), while only about 5 per cent are over 150 mow.

RICE, THE PRINCIPAL CROP.

Rice is the principal crop, particularly in the Canton delta district, where two and sometimes even three crops are produced yearly. Rice requires a very low-lying soil and plenty of water for its cultivation, and this is afforded by the annual rise of the rivers and also by irrigation, for which latter purpose water wheels and also tread mills are extensively used. The first crop of rice is sown in March, transplanted in April, and harvested in July. The second crop is sown in July or August, transplanted a month later, and the harvesting takes place in November or December. One mow (one-sixth of an acre) of first-quality land will produce about 3½ piculs (467 pounds) of rice; a mow of second-quality land will average 2.40 piculs (320 pounds), while third-quality land produces about 1.70 piculs (226 pounds). Rice fields are generally worked under leases, only a small percentage of the people working their own lands. The "ancestral halls" of the villages own considerable areas of agricultural lands, which are leased for short terms, the rental varying from $4 to $10 subsidiary coin per mow. After the harvest, part of the crop is sold and part reserved for the daily ration. In addition to rice, beans, groundnuts, and vegetables are grown and sold, the proceeds of which are sufficient for the farmer's daily expenses. When lands are leased from a wealthy landowner, the rental is usually paid in grain. The market price of rice varies from

$3.50 to $4.50 Mex.[1] per picul (133⅓ pounds). The growing of rice is encouraged, as is also its importation from abroad, while on the other hand its exportation is prohibited by the Government. In other words, as it is the staple food of the people every precaution is taken to see that a sufficient supply is on hand to prevent a famine.

SILK PRODUCTION.

The growing of the mulberry tree and the rearing of silk worms is an important industry, particularly in Kwangtung, although silk is raised in the other Provinces as well. The mulberry bushes are usually grown along the banks of streams. They put forth leaves from six to eight times during the year. As soon as these leaves mature they are stripped from the bush by the Chinese and fed to the silk worms. Six crops of silk are produced each year, and any flood or other disaster that produces a shortage of the mulberry crop is immediately followed by a scarcity of cocoons and a consequent shortage in the silk crop. The silk worms are reared on large frames of twisted bamboo, on which they spin their cocoons. These cocoons are then gathered and brought to market, where they are sold to the silk filatures. The chief silk-producing area is in the northeastern part of the delta of the West River. In this district, within a radius of about 40 miles, there are approximately 180 steam filatures, each employing an average of 500 girls.

While Canton raw silk is in some respects superior to the silk of other producing centers, yet at present the same attention is not given to the rearing of the silk worm and the winding of the raw silk as is paid in the sericultural districts of Europe and Japan. In the latter places the eggs and parent moth are subjected to examination and no diseased worm is allowed to spin a cocoon. In the Canton silk districts, on the contrary, the methods employed are very haphazard. The infection of healthy worms by diseased worms is very great. The advent of the steam filature is said also to have caused a deterioration in the quality of the silk. In former times the farmer raised the worms and reeled the silk himself, and it was thus to his interest to minimize disease and to allow the worm its full time of six days to spin the cocoon. Now the farmer sells his cocoons to the filature according to weight (after a certain examination by the buyer), and his energy is directed to producing quantity rather than quality of cocoon. The method of reeling the silk in vogue in the filatures of Canton is not up to the standard of the other producing centers, as the thread is not uniform and contains more large knots, slugs, and waste than the others.

Canton silk has a peculiar quality, owing to its spongy and soft nature, which enables the fiber to take up a greater proportion of dye than other sorts. The only silk to approach it in this quality is the wild silk of North China and the Indian silk called "Tussore" or "Tussah," but the latter is so impure as to show heavy loss in working.

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[1] Because of the striking changes in the value (expressed in United States currency) of the silver dollars used in China, it has been deemed impracticable in this handbook to convert "Mex." values to American gold. The term "Mex.", it should be explained, is ordinarily used in China in referring either to actual Mexican coins or to the Yuan or other silver dollars minted by the Chinese Government. During the time that the material for this handbook has been in course of preparation, the value of this silver currency has varied very widely, and it has consequently been impossible to assign, for conversion purposes, a definite value that would afford any real guide to the reader. The following values have been assigned to the "Mex." dollar by the United States Treasury Department (the value of the Hongkong dollar being practically the same): Jan. 1, 1914, $0.471 United States currency; Apr. 1, 1914, $0.458; July 1, 1914, $0.458; Oct. 1, 1914, $0.432; Jan. 1, 1915, $0.397; Apr. 1, 1915, $0.394; July 1, 1915, $0.399; Oct. 1, 1915, $0.3841; Jan. 1, 1916, $0.4172; Apr. 1, 1916, $0.4574; July 1, 1916, $0.5462; Oct. 1, 1916, $0.5397; Jan. 1, 1917, $0.5908; Apr. 1, 1917, $0.6365; July 1, 1917, $0.6543; Oct. 1, 1917, $0.7717; Jan. 1, 1918, $0.7514; Apr. 1, 1918, $0.7497; July 1, 1918, $0.7857; Oct. 1, 1918, $0.7857; Jan. 1, 1919, $0.7857; Apr. 1, 1919, $0.7857; July 1, 1919, $0.8706.

Raw silk forms the principal item of export from Canton, amounting ordinarily to about 46,000 bales annually. In addition, there are usually exported about 31,000 bales of waste silk and 5,000 or more bales of pierced cocoons. These latter are the cocoons from which the chrysalis or moth has been allowed to escape for breeding purposes. Before the European war, about two-thirds of Canton's raw silk was exported to Europe, Lyon and Italy being the principal markets. Since the outbreak of the war, an increased percentage has been shipped to the United States; this country now takes more than half of the total export, the remainder going to Europe. The local consumption of silk for spinning and weaving purposes is also very great.

CULTIVATION OF STRAW FOR MATTING INDUSTRY.

The cultivation of straw for the matting industry is carried on chiefly in the districts of Tungkun and Lintan in Kwangtung Province. The straw seed is planted in sheltered spots during the month of November and transplanted about the end of January or the beginning of February into fields that have been previously covered with several inches of water. The fields are frequently irrigated and cultivated until harvest time, which is July for the common grades of straw and August for the better grades. The straw varies from 5 to 7 feet in height. When harvested the three-cornered reed is split and laid out in the sun to dry. When the straw is dry it is tied into bundles of 1 picul (133⅓ pounds) each and sold in the open market at various prices based on demand. For the manufacture of matting it is carefully sorted as to quality and size. Straw selected for dyeing is generally of poorer quality, as its defects do not show up so readily.

GROWING OF CANE AND MANUFACTURE OF SUGAR.

The production of sugar cane and the manufacture of sugar forms one of the principal industries of this region. Several varieties of sugar cane are produced. The native methods employed in the manufacture of sugar are very crude. The machinery consists of two wheels (turned by cattle) to crush the cane and three caldrons to boil, thicken, and then granulate the juice. The juice is settled with lime and afterward clarified with eggs. In addition to these native methods, several sugar refineries have also been established at Hongkong. The greater part of the cane is exported to Hongkong, where it is manufactured, and the sugar is then reshipped into China.

The poppy plant, although its cultivation has been strictly forbidden by the Government, is still cultivated to a certain extent in the remote interior districts of Yunnan and Kweichow.

EXPORTATION OF TEA.

Tea is grown to a considerable extent in many districts in Kwangtung and Yunnan, and still forms a considerable item of export from Canton and its neighboring ports. The export of so-called "black tea" from the various ports within this consular district has averaged between 7,000,000 and 8,000,000 pounds for the past few years. Very little of this tea is shipped from Canton directly to the United States, although some of the Kwangtung exports doubtless find their way there eventually.

MISCELLANEOUS CROPS.

Wheat is cultivated to a certain extent in the northern part of Kwangtung and also on the high table-lands of Yunnan. Other crops include Indian corn or maize, groundnuts or peanuts, tobacco, and ginger. Small quantities of oats, barley, and rye, as well as potatoes, are raised, the latter being for the most part grown in Kwangsi.

CASSIA BARK, BUDS, AND OIL.

The cassia tree (*Cinnamomum cassia*) is grown in some parts of Kwangtung, but chiefly in Kwangsi Province, and the exportation of cassia bark, cassia buds, and cassia oil is carried on to a considerable extent through the port of Canton. The cassia tree is propagated by seeds in nurseries and, when a few inches high, is planted on the hillside, where it requires no care or fertilizer to aid its growth. In six to seven years it reaches a height of 7 to 8 feet, with a trunk 5 inches in diameter, and it is then cut down at the roots. The season of cutting is between April and June. The roots are then covered with mud, and after six years the tree has reached its former growth, when it undergoes another cutting. Its life is about 30 years. The bark is stripped off by running a knife along the branch on both sides and then gradually loosening it. After it is taken off it is allowed to dry for 24 hours, during which period it undergoes a kind of fermentation, and the epidermis is easily scraped off. The bark soon dries into the quilled shape in which it is shipped to America. Thin pieces having an agreeable spicy taste when chewed and a tolerably smooth surface are the best kind.

Cassia buds and cassia twigs form a separate article of commerce. The former are the fleshy ovaries of the seeds; they are pressed at one end so that they somewhat resemble cloves in shape.

Cassia oil is obtained from the leaves and twigs of the cassia tree by distillation.

Cassia is used for various purposes in carpentry, medicine, perfumery, and cookery. It is exported from Canton in both bales and cases, each weighing ½ picul (66⅔ pounds). The exports of cassia from Canton ordinarily amount to 18,000,000 to 20,000,000 pounds annually. The price of cassia bark has risen considerably of late.

TIMBER AND FRUIT TREES.

The greater part of this region is, like other parts of China, bare of forests. However, there are certain wooded sections, particularly in the mountainous tracts of northern Kwangtung, Kwangsi, and Kweichow, and these furnish a considerable amount of timber for use in building and other industrial purposes. Considerable quantities of firewood are shipped from these regions to Canton.

In addition to the pine forests, there are extensive groves of bamboo throughout the district. Bamboo is, perhaps without exception, the most useful article known to the Chinese, and its uses are almost without number. Rafts of bamboo poles are floated down the river to Canton and sold as they lie in the water.

This region abounds in fruit trees, among which may be mentioned the orange, lichee, peach, apricot, and plum.

FARMING METHODS.

Farming methods among the Chinese are extremely primitive. The tools used and the methods of planting and harvesting are much the same as they have been from ancient times. A small, weak plow is used, which does its work only superficially. The hoe and mattock are heavy, clumsy affairs of native design and manufacture. The rice is thrashed in the fields entirely by hand, the stalks being beaten against the sides of a wooden receptacle until the grain is all knocked out. There are, however, a number of hulling and polishing mills throughout the district, which are operated by steam. In the matter of irrigation, the Chinese are very skillful in the arrangement of water wheels to lift the water up to the level of the fields. Where there is not sufficient current to turn a wheel, treadmills are used.

DOMESTIC ANIMALS.

The water buffalo is used quite extensively by the farmers of South China as a beast of burden. It pulls the plow and the harrow. A considerable number of cattle and hogs are also raised throughout the district, principally in Kwangtung Province. These are shipped to Hongkong, and from there sent to the Philippines. A considerable amount of Chinese sausages and lard is manufactured in Canton and shipped to Manila, the United States, the Straits Settlements, and other places for the use of the Chinese living there. In Kwangtung Province are to be found very few horses or ponies, although farther inland, in Kwangsi and Yunnan, ponies are found to a certain extent. A good deal of poultry is raised throughout the district, and the exportation of eggs to Hongkong amounts to several thousand dozen per day. The rivers and coast of Kwangtung abound in fish, and fishing is the form of livelihood of a very large number of people.

MINERALS AND MINING.

The four Provinces constituting the consular district of Canton possess mineral resources of great variety and richness. Gold has been washed for centuries from the waters of Hainan, and its presence in northern Yunnan is inferred from the name that the Yangtze bears in its course through the upper prefectures of that Province—"The River of Golden Sand." Silver mines are found in all four Provinces and are being worked at Pakshektong, Kwangtung, and Kweihsien, Kwangsi. The most important deposits that have been tapped to any extent in this district are the stanniferous lodes at Kotchiu in Mengtsz-hsien, Yunnan. Only at the tin mines of Kotchiu has any considerable advance been made toward modern scientific mining. Copper is found in northern Yunnan and in Kweichow. Besides the minerals just mentioned, iron, coal, antimony, orpiment, lead, and quicksilver are found in various sections of the district in varying quantities and of different qualities.

COAL.

Coal is to be found in all four Provinces. According to an estimate made by Drake in "Coal Resources of the World," the following are the figures for the coal resources of the four Provinces: Yunnan, 300,000,000,000 metric tons; Kweichow, 30,000,000,000 metric tons; Kwangsi, 500,000,000 metric tons; Kwangtung, 1,009,000,000 metric tons. Later estimates, however, seem to indicate that the estimates for Yunnan and Kweichow are too large.

According to statistics compiled by the Chinese Geological Survey, the annual production of coal in these four Provinces is approximately as follows: Yunnan, 86,000 metric tons; Kweichow, 100,000 metric tons; Kwangsi, 10,000 metric tons; Kwangtung, 12,000 metric tons. These figures are known to be inexact, as none of the mines in these four Provinces are worked by modern methods. The coal is obtained from hundreds of small shafts at widely scattered places, and anything like a close approximation of the output is impossible.

The most important coal fields in Kwangtung Province are situated in the vicinity of Shiuchow, in the northern part of the Province along the North River. Within a radius of 15 miles from the city of Shiuchow there are 10 mines operated by different companies, some of which work regularly and others intermittently. All of them work without machinery. However, the two larger companies, the Liang Kwang and the Hip Hing, are developing their properties on a modern system with a view of installing machinery as soon as the properties have sufficient tonnage blocked out to warrant the expenditure on up-to-date equipment. Some of the old workings in this vicinity date back a century, but all of the mining done in the past has been superficial and not followed to a great depth. Very few mines have exceeded 300 feet below the level of the general country. This may be traced to two causes: First, with only crude bamboo pumps it was found to be too expensive and too stupendous a task to handle the mine water; second, proper ventilation was very difficult without the aid of mechanical means, and not only did the insufficiency of fresh air cause difficulty in breathing and thereby reduce the working capacity of the miners but the air circulation was too feeble to dilute and carry away the obnoxious gases from the workings.

In addition to the mines near Shiuchow, coal is also found in the districts of Far Yuen and Ko Ming and at places along the East River.

Most of the coal mined is dusty. The proportion of lumps is usually small. The lumps crumble to dust on long exposure to the elements. Most of the coal burns with a short purplish-blue flame and without smoke or the odor of sulphur. Some of the seams produce a coal that burns with a moderately long yellow flame. The former might be classed as semianthracite coal, with from 7 to 11 per cent of volatiles, and the latter as a bituminous coal, with from 12 to 20 per cent of volatiles. The semianthracite is principally used for lime burning, wine distilling, and to some extent for cooking. The bituminous coal finds its place in mixing with imported bituminous coal for steaming purposes. So far, neither the local government mining bureau nor any private concern has taken pains to investigate the conditions necessary for the burning of this coal in order to obtain the best heating results. All the power plants and steamers in and about Canton have been designed to burn Japanese, Kaiping, or Manchurian bituminous coal. It goes without saying that no just estimate of local anthracite coal can be formed when it is burned on grates so designed.

TIN.

The principal tin mines in the district are the Kotchiu mines at Mengtsz-hsien, in Yunnan Province. These mines cover an immense area and have been operated by the natives for centuries. It is probable that, at the present time, a smaller amount of tin is being mined than was the case before the Mohammedan Rebellion, when the number of employees is stated to have been at times more than 100,000.

The deposits occur both on the surface and beneath it. The shafts are sunk into the hillsides at an angle usually of 45° and are started at random without previous test borings. Many of the shafts reach a depth of more than half a mile, but, because of their horizontal direction, require no ore-lifting apparatus. They are, without exception, extraordinarily narrow and low; the roomiest shaft is stated to be only 4 feet high and a little more than 3 feet wide. For miners half-grown boys are in demand. In some of the shafts an attempt has been made to assist the circulation of the air by means of wind boxes or bellows. A considerable source of riches is said to lie in the Kotchiu mountain system, the whole of which is believed to contain tin ore. The greatest drawback to increased production is the want of water for washing purposes. The rainy season rarely lasts for more than three months, and, for lack of artificial means of conserving the water supply, the ore can be worked with a profit for only about six months in the year. The native process of washing the ore is somewhat similar to the modern hydraulic system. It is accomplished by digging trenches before the time for the big rains. The average ditch is from half a mile to a mile in length, with sufficient slope to cause a gentle pressure.

The Yunnan Tin Trading Co. conducts a modern ore-dressing plant and smelting works at Kotchiu. The ore-dressing plant contains 5 trammels for first washing of the low-grade ore, 2 ball mills, with 4 gigs each for grinding the coarse ore, and 1 large tube mill for grinding the finer ore, 52 washing tables of three models (the Wilfley, the Ferraris, and the Frue Vanner), and 12 hydraulic classifiers. The smelting works contain 3 gas generators, supporting 6 reverberatory furnaces, 3 refiners, and 1 blast furnace for handling slag. Each furnace has a capacity of 4 tons of ore per charge, each charge being mixed with sand and charcoal in proper parts, according to the grade of the ore. The average requires 18 hours—or from 12 to 30 hours, according to the grade of coal and the purity of the ore. The smelting works cast the ingot in the iron mold, analyze, and sell according to purity, but they also conform to the peculiar Chinese practice of casting in sand molds. The ingot cast in the sand mold is not sold upon analysis, but the surface indications of the ingot form the basis upon which the purchase is made. The capacity of the Kotchiu Smelting Works is about 18 tons per day, but the native methods of mining and hauling both the ore and the coal only permits the smelter to operate for six months of the year and limits the daily output to about 9 tons.

In addition to the smelting works above mentioned, there are numbers of native smelting ovens in this district. These are constructed of clay bricks at a cost of about $1,000 each. The bellows used are of wood, and each requires three men to work it. The ovens are fired in November and continued in use for three months. According to a British report, one oven will turn out between 1,500 and 1,700 pounds of tin per day. It is stated that these native ovens are able to compete successfully with the more modern plant of the Yunnan Tin Trading Co.

Shipments of tin from these mines to the United States are all made through the port of Hongkong, there being at present no direct shipment from the mines.

Tin is also mined to some extent in Kwangsi Province and at Nodoa, in Hainan. The output of the mine at the latter place is exported to Singapore.

A report from the Hongkong consulate general, dated May 19, 1919, had the following to say concerning Yunnan tin:

> As a result of the continued refusal of Europe and the United States to take South China tin at a rate which will make mining of the metal possible in spite of the low price in silver that present gold prices entail at current silver exchange, the production of tin in Yunnan Province, the basis of the tin industry of Hongkong, has all but completely collapsed. Estimates of production at the present time indicate that it has fallen off all the way from 50 to 80 per cent, i. e., the production of the Yunnan fields during 1919 will run only from 2,500 to 6.000 tons, in place of the 12,000 tons last year. Under present exchange there is little chance of any revival of the trade. The situation has come to be so serious in the mining fields that a great proportion of the miners have left work and have sought other employment, thus not only reducing the possibility of production at the present time, but destroying the organization on which future production in a large measure must rest.

ANTIMONY.

Antimony ore is produced in many districts in the Provinces of Kwangtung, Yunnan, and Kwangsi. In Kwangtung the ore is found chiefly in the Kook Kong district, on the North River. It occurs generally in large bowlders and in the sulphide form (very rarely in oxide form). At the present time several antimony smelters are established in Canton and Hongkong for the refining of the ore, and in Yunnan the Chih Ts'un Antimony Smelting Works have been doing a considerable business. These smelters, though crude, are able to turn out regulus running 99 per cent pure.

COPPER.

There are extensive deposits of copper in the regions of northern Yunnan and also in Kweichow. However, owing to the expenses of transportation by the railway through Tongking and thence to Chinese ports, practically none of this copper has hitherto been exported. On the contrary, the Government has found it necessary to purchase quantities of Japanese copper for the use of the various mints.

IRON.

Iron ore is found in Kwangtung, Kwangsi, and Kweichow. In Kwangtung it is found in the districts of Fong Cheng, near Pakhoi, and also north of Waichow on the East River. Hematite seems to be the principal ore. Near Fong Cheng, manganese is also found with the iron deposits. The iron ore is smelted in the crude native way, mostly into cast iron, from which many domestic cooking utensils and other household articles are made. The manganese ore is sold to the Hanyang Iron Works at Hankow.

LEAD—MOLYBDENUM—ZINC—QUICKSILVER.

Lead is found in Ko Yao district, Kwangtung, and in Sun On, near the British New Territory.

Molybdenum occurs in sulphide form in the district of Yung Yuen, Kwangtung, and a company was organized to work on the property, but work was abandoned about three years ago.

Zinc spelter is produced in considerable quantities in Yunnan, the exports of zinc having risen from 5,117 piculs (305 tons) in 1914 to 30.050 piculs (1,789 tons) in 1915.

Quicksilver mining has been attempted in Kweichow, but has met with very little success.

WOLFRAMITE.

During 1918 wolframite ore was mined and marketed in large quantities. War conditions created a demand for tungsten steel in the United States and Europe which led to the general development of this ore, and during 1918 it became one of the leading articles of export. By the middle of March, 1919, however, the production of the ore had almost ceased because of the decline in price, which in some cases was less than the cost of production. Shipments of the ore during 1918 totaled in value 3,140,220 taels ($3,746,282). Most of the veins are small and are in hard rock formation, averaging about 2 inches in width. The mining of this ore now requires extensive blasting operations.

PRECIOUS METALS.

As regards the production of the precious metals, gold and silver, it may be said that although there are undoubtedly mines and workings at various places in the different Provinces it is very difficult to obtain any information concerning them, since they are only small workings. During the past few years there have been one or two attempts by joint foreign and Chinese companies to operate gold mines in Kwangtung Province, but it has been found necessary to abandon the enterprise from one cause or another, usually through lack of funds. The only gold mine under joint foreign and Chinese management at present in operation is the Mo Fung Shan Gold Mining Co., in Tseng Cheng district, Kwangtung.

DIVISION OF MINES.

The mining affairs of the Provinces are under the direction of the division of mines, which is an office under that of the commissioner of finance. In Kwangtung Province, the division employs two secretaries and two technical engineers to look after the work. The engineers are appointed by the Ministry of Agriculture and Commerce at Peking. When a person or organization applies for a mining claim, a map, in triplicate, is to be sent in, showing the location and boundaries of the claim, together with an application, in duplicate, for prospecting. The commissioner, in turn, sends a copy of the map and application to the magistrate of the district in which the claim in question is located for the latter's investigation. If the magistrate reports favorably upon the claim, assuring the government that no disturbance to the public is to be caused and that there are to be no encroachments upon private property rights except with the consent of the owners, the commissioner approves the application and refers the matter to the Ministry of Agriculture and Commerce for final sanction. The claim is thus registered, and prospecting and developing work can begin. As to mining, a further application is to be sent in proving that a mining permit is warranted.

RESTRICTED USE OF FOREIGN MACHINERY.

In Kwangtung Province practically no foreign machinery is used for mining purposes. The Mo Fung Shang Gold Mining Co. is the only company known to use any foreign machinery. This mine has a small three-stamp mill with a Huntington mill as a regrinder. In the lead mine that is operated in the British New Territory, in the vicinity of Kowloon, there are two 5-stamp batteries with three Wilfley tables as concentrators. Foreign pumps are used in one or two instances in the coal properties, but they are hand pumps.

The chief mineral deposits in Kwangtung occur on the island of Hainan. They deserve the attention of mining engineers, since very little is known of the mineral resources of this district. According to reports of Chinese, the island is very rich in minerals.

In the Tseng Sheng, Pun Yu, Lo Ding, and Ching Yuen districts of Kwangtung Province gold is found in the streams, and if systematic prospecting is carefully carried out promising gold properties may be found.

At the present time there is very little opportunity for the introduction of mining machinery.

COMMUNICATIONS: GENERAL INTRODUCTION.

The great outlet for the trade of Kwangtung, Kwangsi, and Kweichow Provinces is the port of Hongkong. Situated as it is at almost the mouth of the Sikiang or West River delta, it is easily reached by steamers and junks from the entire territory drained by the West River and its tributaries. Lines of steamers run between Hongkong and Canton, Hongkong and Wuchow, Hongkong and Kongmoon, and Canton and Wuchow, the latter city being the most important trading center in Kwangsi Province.

Yunnan Province, situated on the border in close proximity to both French Indo-China and Burma, has a considerable trade with both countries. The French railway that connects Haiphong, the capital of Tongking, with Yunnanfu, the capital of Yunnan Province, and forms the connecting link between Yunnan and Tongking, is the route by which most of the foreign goods are imported into Yunnan. Trade with Burma, having to pass through an exceedingly mountainous and rough country, is carried for the most part on pack animals, no railways or water communications connecting Burma with Yunnan. There is also considerable communication between Yunnan and Kweichow and the Provinces of Szechwan and Hunan on the north.

WATERWAYS.

In Kwangtung Province the principal method of communication is by water. The three principal rivers are the West, North, and East Rivers. Of these, the chief is the West River, which rises in the eastern part of the Yunnan table-land, flows on the border between Kweichow and Kwangsi for a distance of 160 miles, and then takes a southeasterly course, passing through the center of Kwangsi and Kwangtung. At Samshui (30 miles from Canton) it is joined by the North River and forms the Canton delta. During the flood season vessels drawing up to 16 feet of water can reach Wuchow on the Kwangsi border, a distance of 240 miles from Canton, but in ordinary times only vessels whose draft is not more than 6½ feet can reach the latter port. A line of shallow-draft stern-wheel steamers of about 400 tons operate between Wuchow, Canton, and Hongkong. Beyond Wuchow communication is by small steamer and steam launch as far as Nanning, the capital of Kwangsi, and also Lungchow and Poseh. There are about 55 launches and motor boats plying on the West River and its branches between various cities and towns in the Province of Kwangsi. The motor boats use kerosene and crude oil.

In addition, numerous junks and small native craft of every description ply up and down the entire length of the West River and throughout all its branches. The principal method of communication throughout the delta is by native passage boat, towed by a steam launch. These steam launches are built for the most part in Canton or Hongkong and are of 50 to 100 tons burden. The passage boat or junk is towed astern and is capable of accommodating several hundred passengers in the cramped quarters in which the Chinese travel. The boat has accommodations for three classes of passengers—first, second, and third. There is no definite rate of tariff based on mileage, but fixed systems of charges are adopted between various points.

RAILWAYS.

There are four railways in Kwangtung Province—the Canton-Kowloon Railway, the Canton-Hankow Railway, the Canton-Samshui Railway, and the Sunning Railway. There is one railway line in the Province of Yunnan, connecting the capital with French Indo-China. There are no railways in Kwangsi and Kweichow Provinces.

CANTON-KOWLOON RAILWAY.

A line 111 miles in length connects Canton with Kowloon, on the mainland opposite Hongkong. It consists of two sections—the British section, 22 miles in length, between Kowloon and Samchun, a town on the border between British and Chinese territory, and the Chinese section, between Samchun and Canton, a distance of 89 miles. The road was opened for through traffic in October, 1911.

The original agreement for the construction of the Chinese section was signed in 1898, but it was not until August, 1907, that the survey was commenced and not until June, 1908, that actual construction work began. The funds were supplied by the British & Chinese Corporation (Ltd.), and the construction and equipment were carried out by British engineers. The original loan was for £1,500,000, guaranteed by a mortgage on the line. The cost of construction work, including all charges for rock, earth, and protection work, was approximately $73,150, United States currency, per mile. Much of the road lies through a hilly country, giving it a ruling grade of 1 in 150. Fifty-six per cent of the line is on grade and 44 per cent on level. There are no tunnels on the Chinese section, but the earthwork is, on the whole, heavy, and the bridges, culverts, etc., numerous.

There are 46 girder bridges, with a clear opening of 4,868 feet, and 39 arched bridges, with an opening of 546 feet. The rails were supplied by the Hanyang Iron & Steel Works, of Hankow, China, as were also the fastenings, with the exception of the fishplates. The sleepers were obtained from New South Wales and are mostly of eucalyptus, 8 feet by 9 inches by 5 inches. The frames and bogies of the cars were constructed by the Metropolitan Carriage & Wagon Co., of Birmingham, and the superstructure by the Hongkong & Whampoa Dock Co., of Hongkong, and the Tangshan shops of the Railways of North China. The passenger coaches are 61 feet long over platforms, with four-wheel bogies and bodies of teak. The first and second class coaches are lighted with electricity and have high dome roofs with torpedo ventilators. The trains have Westinghouse air brakes throughout and are connected up with central couplers. The first-class cars have a side corridor with coupes and a card saloon, and rattan seats and cushions. The type of locomotive adopted is 2-6-0, outside cylinders, 19 by 24 inch stroke, double bogie tender for 3,500 gallons of water and 5½ tons of coal. The weight of engine and tender loaded is 101½ tons, the maximum axle load is 16½ tons, and the diameter of driving wheels is 5 feet. The engines were manufactured by the North British Locomotive Co., of Glasgow. There are about 10 locomotives on the Chinese section.

The main source of revenue for the line is in its passenger traffic. The estimated earnings of the Chinese section for the year 1918 were $988,925, about 80 per cent of which was derived from passenger traffic. The railway is operated at a heavy loss. As comparatively little freight is handled, the road does not run any trains exclusively for freight. The freight tariff on the Chinese section is as follows:

Classes.	Rate per English mile.	
	Per ton of carrying capacity.	Per picul (133⅓ pounds).
	Cents Mex.	*Cents Mex.*
First class	5	0.5
Second class	4	.4
Third class	3	.3
Fourth class	2	.2
Dangerous goods	10	.5

NOTE.—$1 Mex. normally equals $0.50 United States currency; on Jan. 1, 1919, however, $1 Mex. was worth about $0.78.

In all transactions in goods traffic the following equivalents are used: (*a*) One ton equals 16 piculs 80 catties; (*b*) 1 picul equals 133 pounds. In calculating the rates payable for the conveyance of goods or live stock, the minimum distance charged is as for 10 miles. A fraction of a mile is reckoned as 1 mile, and all rates are calculated to the nearest 5 cents.

Packages containing two or more classes of goods are charged on the weight at the rate for the highest class of goods the package contains.

All goods are carried by the railway at the owner's risk only. which absolves the railway from all claims whatsoever in respect of the goods so carried.

All consignments before loading must be weighed, and in case of goods chargeable by measurement the dimensions thereof must be taken. Freight charged by measurement is calculated on the basis of 3 cubic feet = 1 picul (133⅓ pounds).

In calculating carload rate, the minimum sum of $6 Mex. is charged on 15-ton wagons and $10 Mex. on 30-ton wagons.

The passenger tariff is as follows: Canton to Sheklung (40.15 miles)—First class, $1.60 Mex.; second class, $0.80 Mex.; third class, $0.40 Mex. Canton to Samchun (88.73 miles)—First class, $4 Mex.; second class, $2 Mex.; third class $1 Mex.

The following quantities of luggage are allowed to be carried free of charge by each passenger: First class, 133 pounds; second class, 100 pounds; third class, 50 pounds.

CANTON-HANKOW RAILWAY.

This line is to connect the two important industrial and commercial centers of Canton and Hankow, the latter being in Hupeh Province. When completed it will be approximately 720 miles in length. The distance within the limits of the Canton consular district is 212 miles—from Canton to the Kwangtung provincial boundary—and the road is completed and running between Canton and Hsiukwan, an important city in the northern part of the Province, a distance of 139 miles.

The original concession for the line was granted to the American China Development Co., an American syndicate. This concession also included the right to build a road from Canton to Fatshan and Samshui—Fatshan being a large manufacturing center of about 600,000 people, distant only 12 miles from Canton. Work on this section was started in 1902, and the line was completed through to Samshui in 1904. Work on the main line was begun at about the same time. However, in 1904, on account of friction between the American constructors and the Chinese authorities, the work was suspended. At about this time it became known that Belgians had acquired extensive interests in the American China Development Co., and a strong agitation was begun by the Chinese to cancel the concession of the American syndicate and build the line entirely with Chinese capital. Negotiations were concluded in August, 1905, and the Chinese, by the payment of $6,750,000 gold as a compensation to the Development Co., canceled the concession. The payment of this money was effected by a loan secured from the Hongkong Government. In June, 1906, the road was turned over to the merchants of the Provinces through which it is to run; they have assumed the loan, the Provinces of Kwangtung and Hunan to bear each three-sevenths and Hupeh one-seventh. The road is at present operated entirely by Chinese, and the construction work, which has progressed very slowly for the past few years, is now almost at a standstill. The principal reason for the slow progress has been the disagreements between the shareholders and the resulting changes of administration, but floods, landslides, etc., have also contributed their quota to delaying the completion of the line. ✓

At present the line is not a success financially. This is due to the fact that the road depends for its success on the through traffic that will come to it when the line is completed through to Hankow.

In 1918 the passenger receipts amounted to approximately $670,000 and the freight receipts to $1,430,000. The goods carried include cattle, swine, firewood, limestone, coal, rice, poultry, tobacco, and salt.

The rails are 85-pound steel rails of American, Belgian, and Chinese manufacture, the Chinese rails being from the Hanyang Iron & Steel Works, of Hankow. The bridge girders and trusses are nearly all from the American Bridge Co., others being of Belgian and British manufacture. The locomotives in operation are products of the Baldwin and American Locomotive Works. During 1914 five consolidated locomotives were purchased from these two firms. The cars in use are of many kinds. The passenger cars are for the most part of American manufacture, the freight cars being of both English and American pattern. It seems likely that the short cars will soon be rejected and that only the eight-wheel American cars of all classes will be used. A great deal of the steel work used in connection with water tanks, turntables, warehouses, etc., was imported from the United States, as well as a considerable amount of Oregon pine for use as sleepers, etc. Some sleepers are also imported from the Philippines.

As stated above, the line as at present built is from Canton to Hsiukwan, a distance of 139 miles. Beyond Hsiukwan the only work that is completed is about 3 miles of grading and the piers for a bridge over the North River. This bridge will be the longest on the railway, 1,200 feet in length, consisting of five 200-foot and two 100-foot spans. A tunnel 1,400 feet long, 154 miles from Canton, is also partly constructed. The country to the north of Hsiukwan through which the road is to pass is very rough and mountainous and will furnish but little traffic. The only town of any importance through which the road will pass is Lokchong, 170 miles from Canton, and from this point on the road runs through extremely rough country to Pingshek on the border of Hunan.

The freight tariff is as follows:

Classes.	Rate per li (3/10 mile).	
	Per ton.	Per picul (133⅓ pounds).
	Cents Mex.	*Cents Mex.*
First class	2.2	0.22
Second class	1.8	.18
Third class	.9	.12
Dangerous goods	4.0	2.00

The minimum charge is for 50 li. Any part of a li is calculated as 1 li, and any part of a cent is calculated as 1 cent. The minimum weight is 1 picul. Any part of a picul is calculated as 1 picul.

Each pig is calculated as 1 picul, pigs (more than one) being charged according to weight as first-class goods.

Each crate of poultry weighing less than 1 picul is charged as 1 picul. Poultry in crates is charged according to weight in the same manner as pigs.

Cattle are charged at 1½ cents per head per li.

Excess baggage is charged at the rate of first-class goods.

The passenger tariff is as follows: Canton to Yingtak (87.63 miles)—First class, $4.35 Mex.; second class, $2.90 Mex.; third class, $1.75 Mex. Canton to Wushek (121.83 miles)—First class, $5.85 Mex.; second class, $3.90 Mex.; third class, $2.35 Mex. Canton to Shiuchow 139.28 miles)—First class, $6.75 Mex.; second class, $4.50 Mex.; third class, $2.70 Mex.

The following quantities of luggage are allowed to be carried free of charge by each passenger: First class, 133⅓ pounds; second class, 100 pounds; third class, 53⅓ pounds.

CANTON-SAMSHUI RAILWAY.

The Canton-Samshui Railway was originally a part of the concession granted to the American China Development Co., but it is at the present time under a separate management from the Canton-Hankow Railway. Under the agreement by which the road was redeemed from the American China Development Co., the Provinces of Kwangtung and Hunan each own three-sevenths of the line and Hupeh one-seventh. The line is only 32 miles in length, but runs through a very populous and fertile country, passing through the large town of Fatshan, with about 600,000 inhabitants. It is considered one of the best-paying lines in China in proportion to its mileage. The receipts during 1918 totaled $946,817, apportioned as follows: Passenger traffic, $896,423; freight traffic, $20,894; miscellaneous, $29,500. The total operating expenditure was about $650,000. The line is double-tracked between Canton and Fatshan. The rails, bridge material, and rolling stock are practically all of American manufacture.

The freight tariff is as follows:

Classes.	Rate per li ($\frac{3}{10}$ mile).	
	Per ton.	Per picul (133⅓ pounds).
	Cents Mex.	*Cents Mex.*
First class	1.65	0.17
Second class	1.35	.14
Third class	1.00	.10
Dangerous goods	4.00	2.00

The minimum charge is for 50 li (15 miles). Distance up to one-half li is charged as 1 li, and no charge is made for less than one-half li.

The minimum weight is 1 picul. Any part less than one-half picul is charged as one-half picul.

Each pig is calculated as 1 picul, pigs (more than one) being charged according to weight as first-class goods.

Each crate of poultry weighing less than 1 picul is charged as 1 picul. Poultry in crates is charged according to weight as first-class goods.

Cattle are charged at 1½ cents per head per li.

The passenger tariff is as follows: Canton to Fatshan (10.25 miles)—First class, $0.35 Mex.; second class, $0.25 Mex.; third class, $0.15 Mex. Canton to Samshui (30.40 miles)—First class, $1.10 Mex.; second class, $0.85 Mex.; third class, $0.55 Mex.

SUNNING RAILWAY.

This short railway, 78 miles in length, is operated in the Sunning and Sunwui districts of Kwangtung. These districts furnish a very great proportion of the immigrants to the United States. The road runs between the towns of Bokkai and Taishan, passing through the treaty port of Kongmoon. At Bokkai there are steamer connections with Hongkong and Macao. Materials are on hand for a 6-mile extension of this railway.

The railway is a private stock company, the entire stock being owned by Chinese, and the management of the road is altogether in Chinese hands. The capital is $4,360,120 local currency. The line has been financed, constructed, and operated by Mr. Hee Chin Gee. The locomotives, car wheels, and trucks were made in the United States, and the car bodies were built at the company's shops at Kungyik. The company also operates a ferryboat 350 feet long and 35 feet wide, able to carry 15 cars for ferrying over the Southwest River at Niuwan. The country through which the railway runs is very populous and fertile, but on account of the cheap water communication very little freight is carried by the road. The company, however, does an extensive passenger business.

The receipts during 1918 were $591,658 from passenger traffic and $143,914 from freight traffic. The total expenditure, including cost of construction materials, was $1,050,000.

YUNNAN RAILWAY.

The Yunnan Railway is a continuation of the French Railway of Indo-China. The Chinese section commences at the border between Yunnan and French Indo-China at Laokai and runs from there in a northwesterly direction to Yunnanfu, the capital of Yunnan Province. The length of the Chinese section is 289 miles, or 470 kilometers. The total length of the line is 530 miles, or 853 kilometers. The gauge is 1 meter. The continuation of the line south into French territory connects Yunnanfu with Hanoi, the capital of Tongking, and also with Haiphong, the chief seaport. The company operating the line is known as the Compagnie Française de Chemin de Fer de l'Indo-Chine et du Yunnan. Work on the Tongking section was begun in 1901. The capital required for the entire line was placed at 101,000,000 francs, and a French syndicate was formed to undertake the work under terms of receiving government support, it being arranged that the colonial government of Tongking should guarantee the syndicate an amount not exceeding 3,000,000 francs yearly, interest on the capital. This annuity was additionally guaranteed by the French Government. In the autumn of 1903 the conditions under which the extension was to be made into Chinese territory were finally settled, it being agreed that the line should be constructed by the French with French capital and without the Chinese Government guaranty, and that the duration of the concession should be 80 years. On the expiration of that period the railway was to revert to the Chinese Government. The completed line was opened to traffic on April 1, 1910.

The line runs through extremely rough country and construction work was very difficult. Instead of following the route of the main highway, which runs from Mengtsz via Manhao and traverses the chief cities, it was found necessary to follow the waterways and take a course some miles east of the old trade route, thus running through a more sparsely settled section. There are few large cities located on the railway. Construction work was also delayed by want of laborers. On one section of the line, through the Namti Valley, no less than 70 per cent of the coolies employed on the railway succumbed to malaria, which is very virulent in this valley, shut in as it is between two walls of mountains. Landslides and other causes were also responsible for a great loss of life.

The track is laid with steel ties and ballasted with broken stone. The clearances in cuts are very small. The banks are much narrower than ordinary American practice would dictate, little or no margin or shoulder being left. Considerable masonry retaining wall work has been necessary. Openings for drainage are fewer than is usual in American practice, despite the heavy rainfall of the section. There are 147 tunnels on the line, the longest of which is 2,112 feet. Some of these have been faced, while others, through the solid rock, have not been. Some have had to be braced with steel inside the masonry facing. The clearances in the tunnels are very small. There are 47 bridges over 65 feet in length. There are many types of steel bridges and also bridges of cut-stone masonry. Considerable ingenuity has been displayed at several places in the mountains in the design of steel bridges. Guard rails are not laid in the track on bridges, despite the fact that many of the bridges are on curves.

The locomotives are of several types. With the exception of a few small switching locomotives, all are of French manufacture. The passenger coaches are all equipped with bogie trucks. They are of three general types—fourth-class cars, third-class cars, which are merely box cars with wooden cross seats built in, and coaches with three compartments, namely, one first class, with seats upholstered in imitation leather or cloth, one second class, and a third class with wooden seats built in. They are lighted with kerosene lamps.

There are a few box cars with bogie trucks, but most of the freight cars are of the four-wheel type. All of the equipment is necessarily light. Only part of the freight cars are equipped with power brakes, most of them being provided with hand brakes only. All cars are of French manufacture. The couplers are of the hook-and-screw lever type usual on the European Continent. They are light in construction, as the trains are not long or heavy. On account of the grades the maximum ability of a freight train is six freight cars of 10 metric tons capacity. As the usual carload is not more than 5 tons, the ordinary train carries, as a rule, something less than 30 tons.

For the purpose of fixing freight rates, merchandise is divided into five classes and the line into four sections. The various classes of goods pay, according to the section, from 4 cents to 26 cents Mex. per ton per kilometer (0.62137 mile). The highest charges are levied on the first class, among the most important articles included in this being cotton goods, dyestuffs, tobacco, matches, kerosene, tin, thread, and machinery. According to the latest reports available, the charges per ton on carload lots, with a minimum of 5 metric tons, are as follows: Haiphong-Mengtsz, $50.40 Mex.; Haiphong-Yunnanfu, $70.80 Mex. The rate for tin, the principal export from Yunnan, from Mengtsz to Haiphong is $40.40 Mex. per ton. French and Indo-Chinese goods enjoy a tariff preference of 20 per cent on an average. Consequently, the rates charged for the carriage of such goods amount to: Haiphong-Mengtsz, $40.40 Mex.; Haiphong-Yunnanfu, $61.31 Mex. The preference enjoyed by French goods is increased by the customs regulations of Indo-China. While the French goods are imported into and passed through Indo-China free of duty, other foreign goods are compelled to pay a specific import duty, which in many cases reaches 60 per cent ad valorem, and such goods passing through Indo-China (that is, imported and reexported) pay 20 per cent of the import duty.

During 1915 there were a number of breaks in the line as a result of washouts and landslides. Freight and passengers had to be unloaded and transported around these breaks. The weight of single packages was thus limited to 40 kilos or less. The cost of transporting this merchandise had to be paid by the shipper.

A railway is being built from Pichetchai via Mengtsz to the Kotchiu tin mines. The capital is Chinese and the engineer is French. The length of this projected line is between 25 and 30 miles.

PROSPECTIVE RAILWAYS.

There are a number of schemes for building railways in the Canton consular district which have not progressed beyond the formulative stage. This is largely because of the political disturbances that have agitated the country during the past few years. A return to normal conditions will no doubt enable the promoters of these projects to put their plans into effect.

The Canton-Amoy Railway is also known as the Waichow Railway. This line is proposed to start from Shektan, a station on the Canton-Kowloon Railway across the river from Sheklung, and to run in an easterly direction, passing through Paklo, Waichow, and Lukfung, and thence running in a northeasterly direction to Kityang and Chaochowfu, in the Swatow consular district. At the latter place it is to cross the Swatow-Chaochowfu Railway, and from there continue in a northeasterly direction to the Fukien border. The total length of the line is estimated at 275 miles. The proposed capital of the company is said to be $25,000,000 Canton currency ($12,500,000 United States currency), divided into 5,000,000 shares of $5 each. The principal promoter of the line was Chen Chiung-ming, who was the governor of Kwangtung Province in 1913. At the time of the so-called "second revolution" in 1913, Chen Chiung-ming declared the independence of Kwangtung, and for this act he was out of favor with the central Government and was forced to leave the country. Since that time nothing has been done with regard to the railway.

The country to be traversed by the line is very populous and fertile, and there are numerous cities, of from 10,000 to 400,000 people, along the route. The chief cities are Sheklung, population 100,000; Waichow, population 300,000; Kityang, population 300,000; and Chaochowfu, population 400,000.

The Canton-Macao Railway is to connect Canton with the Portuguese colony of Macao, a distance of 72 miles. In addition to the main line, it is proposed to build a branch line from Chunchuen to Kongmoon, a treaty port. This branch will be about 30 miles in length. The concession for the line is held by a Chinese company. It is expected that construction will be begun during 1919. The total cost of the main line has been estimated at $10,000,000 Hongkong currency ($5,000,000 United States currency). The country through which the railroad is to pass is low-lying and intersected by numberless creeks. It is given over to the cultivation of rice, fruit, and vegetables. There are no large cities along the proposed line of railway, but the country is thickly populated. Several towns of from 10,000 to 50,000 people are located along this route, among which may be mentioned Chentsun, Shuntak, Heungshan, Kamchek, and Kaokong.

ABSENCE OF TRAMWAYS.

There are no tramways in operation in the Canton consular district, although at one or two places light railways of the Decauville type are in use for carrying goods and passengers for a distance of a few miles only. The engines and equipment of these railways are usually of German manufacture. There is little prospect of tramways being introduced in the near future.

CHARACTER OF ROADS—METHODS OF TRANSPORTATION.

In Kwangtung the numerous waterways reaching every part of the Province serve as a network of lines for transportation purposes, and very few roads are necessary. Such roads as exist are, for the most part, merely pathways between rice fields, paved with slabs of stone. These paths are very narrow in most places, it being impossible for two people to walk abreast. Very little is done in the way of keeping up these roads.

In the cities the streets are extremely narrow, varying in width from 8 to 12 feet, and are paved with stone flags. There are no wheeled vehicles of any sort in use in the cities, and but very few are to be seen in the country districts. Ponies and water buffaloes are used to draw such few vehicles as are in use.

The most famous highway in the Province is that leading from Nanhsiungchow into Kiangsi Province. This road is paved, and all along at regular intervals are built sheds to afford shelter to the carriers, who number about 50,000. The boundary limit of the two Provinces is the Meikwan or Plum Tree barrier, situated at an elevation of 1,000 feet above sea level.

In Kwangsi Province communication is also mostly by water, although the waterways are not nearly so numerous as those of Kwangtung. The chief port of Kwangsi is Wuchow, on the eastern border of the Province. The district served by this port comprises the greater part of the Province and also sections of Yunnan and Kweichow, the chief means of communication being the West River and its branches. The points that Wuchow supplies and that can not be reached by water are served by carrying coolies and pack animals along very ill-kept trade routes, dating from centuries ago.

Yunnan Province has very few navigable streams, and communication is mostly by pack animals and carriers. This Province may be divided into three fairly distinct trade districts: (1) The eastern district, including the prefectures of Chaotung, Tungchuan, Yunnan, Kutsing, Chengkiang, Kwangnan, Kaihwa, Tsuyung, and Linan; trade with this district is carried on from Tongking and Hongkong through the port of Mengtsz. (2) The southern district, including the prefecture of Puerh and trading largely with the British Shan States and the Haut Laus, but drawing on both Mengtsz and Tengyueh for a share of its imports. (3) The western district, including the prefectures of Shunning, Yungchang, Tali, and Likiang, which is supplied by Burma through the port of Tengyueh. A certain amount of intertrading and overlapping occurs, but for general purposes these divisions may be accepted as approximately accurate. Each of these districts has one treaty port or trade mart—Mengtsz in the east, Szemao in the south, and Tengyueh in the west.

Before the advent of the railway the only means of transportation consisted of pack trains of mules, ponies, and occasionally bullocks. Bullock carts were used where possible. The old trade route from Mengtsz to Tongking and the sea lay from Mengtsz overland to Manhao, about 40 miles distant, and then by the Red River to Hanoi. From November until May the river was not navigable, and during much of the remainder of the year its navigation was uncertain and dangerous. Wrecks were frequent and costly. Both above and below Hokow the overland section of the route was scarcely more satisfactory, involving, as it did, long delays and allowing breakages and thefts of cargo. The opening of the railway from Haiphong to Yunnanfu through Mengtsz has now changed all this and given eastern Yunnan a more satisfactory means of communication. Szemao and Tengyueh, however, are still dependent upon their primitive pack service. The city of Tengyueh is the distributing and collecting center in Yunnan for the trade with Burma and is connected with Bhamo by two caravan routes—the "old route" through Nantien, Kanghai, Lungchang, Manwyne, and Nampoung, and the "new route," constructed with the assistance of the Burma Government, via Kanghai, Lungchang, Manhsien, and Kulikha. The "new route" was opened in 1905 and is one stage shorter than the old. Both are dirt roads and during the rains that prevail between May and October are unserviceable. The suspension of traffic during the rainy season is due not only to the impassable roads, but also to the heavy, dank, and suffocating air that then fills the gorges through which the roads pass and brings disease to the muleteers and porters from the higher regions. The entire collecting and distributing trade between Tengyueh and Szemao and Mengtsz, except immediately along the line of railway, is still done by pack trains and porters over precipitous and inconceivably wretched mountain roads. In 1915 the number of mules and other pack animals engaged in this traffic at Mengtsz was 61,099, at Tengyueh 98,390, and at Szemao 15,547.

Numerous other roads radiate from Yunnanfu, the capital, the principal ones being the road to Kweichow, via Kuhchingfu; the road to Szechwan, via Tungchwanfu and Chowtungfu; and the road to Tibet, via Talifu and Atemtze. A road also leads from Yunnanfu into Kwangsi by way of Kwangnanfu.

The Province of Kweichow is very rough and mountainous, and communication is exceedingly difficult. The navigable streams do not penetrate this region sufficiently to serve as highways of communication. The capital of the Province is Kweiyang, and numerous roads radiate from there to all parts of the Province. The town is situated at an altitude of 3,300 feet and is built in the largest plain of Kweichow, 40 miles in length by 4 in breadth. Starting from the capital, roads lead to Chungking in Szechwan, to upper Yunnan, to Kwangsi, and to Hunan. Communication is by pack animals and carriers.

POSTAL FACILITIES.

The Chinese Government Post Office maintains an excellent service throughout this district. Mail is conveyed not only by railway and steamer but also to remote interior districts by launch and by a system of day-and-night courier service. The Province of Kwangtung, having the largest population, is better supplied with post offices than are the more sparsely populated Provinces of Kwangsi and Kweichow, there being at present 125 first, second, and third class offices in Kwangtung, located in almost every city and town of importance, as well as 7 suboffices and 882 postal agencies. The latter are in villages not large enough to warrant the establishment of a post office. Of the post offices about 100 are in the Canton consular district, the remaining 25 being in the Swatow district. About 80 per cent are money-order offices.

In Kwangsi Province there are 30 offices, 3 suboffices, and 232 agencies. Yunnan has 35 offices, 5 suboffices, and 162 agencies. Kweichow has 29 offices, 4 suboffices and 158 agencies.

The amount of mail matter dealt with in these four Provinces amounted in 1917 to more than 120,000,000 pieces.

Each Province constitutes a postal district, which is in charge of the postal commissioner. The head office of the Kwangtung district is Canton; that of Kwangsi, Nanning; that of Kweichow, Kweiyang; and that of Yunnan, Yunnanfu.

A parcel-post service is maintained between China and the United States through the Chinese Post Office. The rate is 35 cents Mex. per pound or fraction thereof. In addition, parcels posted at non-steam-served offices in China pay additional domestic rates and, similarly, domestic postage will be collected from the addressees of parcels sent from the United States to nonsteam-served places in China. The registration fee is 10 cents Mex. extra. Parcels must not exceed 11 pounds in weight nor the following dimensions: Greatest length, 3 feet 6 inches; greatest length and girth combined, 6 feet. Parcels for or from nonsteam-served places may not exceed 1 cubic foot in volume. Parcels must not be sealed with wax, lead, or in any other manner but must be packed so that they can be easily opened for customs examination.

The Chinese postal tariff is as follows:

Letters.—For each 20 grams or fraction thereof: Local, 1 cent Mex. (½ cent in Canton); domestic, 3 cents Mex.; foreign, 10 cents Mex. for first 20 grams, 6 cents Mex. for each successive 20 grams.

Book post.—For each 50 grams: Foreign, 2 cents Mex.

Sample post.—For each 50 grams: Foreign, 2 cents Mex. up to 350 grams, limit of weight.

Express fee to foreign countries.—12 cents Mex. per article.

Domestic money-order rate.—2 per cent. No foreign money orders issued.

In addition to the Chinese post office, the following countries have post offices located in this district: Great Britain—At Canton and at Hoihow, Island of Hainan, Kwangtung Province. France—At Canton, Hoihow, Kwangchow, and Pakhoi, in Kwangtung Province, and Mengtsz and Yunnanfu, in Yunnan Province. Japan—At Canton.

The rate on first-class mail sent through foreign post offices is the same as through the Chinese Post Office. The parcel-post rate to the United States through the Japanese post office is 24 cents Mex. per pound or fraction thereof. The parcel-post rate through the

British post office is 35 cents Mex. per pound. The sample post rate through the British post office is 2 cents Mex. per 2 ounces; limit of weight 12 ounces. All post offices charge double rates for underpaid postage.

The Chinese post office does not maintain a money-order service with the United States or other foreign countries. The British post office will sell a money order on the United States, charging 1½ per cent for such order. The French and German post offices have no money-order facilities with the United States.

There are several lines of steamers carrying mail between Hongkong and the United States across the Pacific. Mails close at Canton one day earlier than the departure of the steamer from Hongkong. These departures vary according to the schedule of the steamers, but mails are usually sent about once a week. Also mails are received from the United States at about the same interval. The average time for first-class mail matter to reach Canton from New York is 30 to 35 days.

TELEGRAPHS.

The Chinese Government Telegraph Administration maintains 67 stations in Kwangtung, 51 in Kwangsi, 35 in Yunnan, and 11 in Kweichow. There are two telegraph lines connecting Canton with Shanghai overland. The first of these, opened in 1882, runs from Shanghai to Canton via Swatow and Foochow. The second, running overland by way of Kiukiang and Hankow, was completed two years later. Telegraph conventions have been entered into between China and the Governments of India and France, respecting connections at the Burma and Indo-China frontiers. The telegraph instruments used in the Chinese Telegraph Administration are the regular Morse instruments, purchased in Great Britain and Denmark. The wires and cables were purchased from the United States and Great Britain.

The rate on foreign messages sent to places within the same Province is 9 cents Mex. per word, the address and signature included. To stations in other Provinces the rate is 18 cents Mex. per word. Chinese messages are sent at 6 cents Mex. per word to stations in the same Province and 12 cents Mex. to other Provinces. Cables sent from points in the Canton consular district to the United States are sent to Hongkong and thence over the Eastern Extension, Australasia & China Telegraph Co. (Ltd.), a British line, to either Shanghai or Manila, and from there over the Commercial Pacific Cable via Guam, Midway, and Honolulu to San Francisco. Cables can also be sent from Hongkong to New York via Singapore, Bombay, Aden, Alexandria, Malta, Lisbon, and the Azores.

The rates from Canton to New York and Boston via the Pacific are $2.40 Mex. and via the Atlantic $3.25 Mex. per word. To San Francisco via the Pacific the rates are $2.15 Mex. and via the Atlantic $3.50 Mex. To European countries the rates are $1.75 Mex. per word. In all cases address and signature must be included in the number of words. The Chinese Telegraph Co. charges $12 Mex. per year for registering a telegraphic code address.

TELEPHONES.

The only telephone system installed in the Canton consular district, aside from the railway telephone lines and a few small private lines with only a few subscribers each, is the telephone system of

Canton. This is a government telephone under the control of the Kwangtung provincial government. The number of subscribers at the present time is 1,609, and the total mileage of single copper wire is 5,889. The service is at present far from satisfactory, as the equipment is rather antiquated. The exchange equipment in use is largely Japanese, manufactured by the Nippon Electric Co., of Tokyo, Japan. The telephones installed are of Norwegian, Swedish, and Japanese manufacture. The rate to subscribers is $6 local currency per month.

In December, 1912, a contract was entered into with the Hongkong representative of the Swedish firm of L. M. Ericsson, of Stockholm, for the purchase of a complete exchange equipment, at a cost of $287,000 Hongkong currency ($143,500 United States currency), including 1,200 wall telephone instruments. This exchange equipment was to have a capacity up to 10,000 telephones, and to accommodate it the Chinese Government erected a fine three-storied brick building on the Bund at a cost of approximately $60,000 Hongkong currency ($30,000 United States currency). This equipment was installed under the supervision of experts sent out from Sweden, the whole being completed some time during 1914.

The telephone company also purchased during 1915 39 miles of lead-covered telephone cable, from a Pittsburgh company; 39 miles of steel wire strand, from a New York company; and other miscellaneous telephone material from a Chicago company.

There has been considerable talk of establishing telephone exchanges in Fatshan, Kongmoon, Wuchow, and other cities in the interior, with a prospect of eventually linking up those cities with Canton, but nothing has been done as yet. It has also been proposed to establish telephone connections between Canton and Hongkong, but at the present time this is scarcely feasible.

NEWSPAPERS.

There are no newspapers printed in a foreign language in Canton. The Hongkong papers are circulated and are largely read by the foreign community. The four Hongkong daily papers, all printed in English, are the South China Morning Post, the Hongkong Telegraph, the China Mail, and the Hongkong Daily Press.

Of the Chinese newspapers, there are about 19 dailies printed in Canton, with a circulation varying from 1,000 to 5,000 each. The most important of these are the Kwangtung Seventy-Two Guilds, published at Tai Tsup Po, and the Yeung Shing Yet Po, published at Sup Pat Po. The advertising rates of these newspapers per 100 Chinese characters are as follows:

Period.	Space above leading article.	Front page.	Back page.
	Canton currency.	*Canton currency.*	*Canton currency.*
One week	$5.00	$4	$2
One month	14.40	12	6
Six months	50.00	40	20
One year	85.00	68	34

A discount of 5 per cent is allowed for advertisements exceeding 300 characters, and 20 per cent for those exceeding 500 characters. The above rates are for ordinary-size No. 4 characters, and an additional charge is made for larger type.

One quarter-page advertisement will cost $23 per month, $120 for six months, or $216 for the year.

The above prices are all given in Canton currency, $1 Canton currency being normally equal to about $0.50 United States currency.

In addition to the newspapers published in Canton, two Chinese newspapers are published in the Heungshan district and two in the Sunning district. Also, newspapers are published at Wuchow, in Kwangsi, and in Yunnan Province.

Among the Cantonese the percentage of persons able to read and write is considerably above the average in China, as the Cantonese are naturally quick and clever at learning. Among the inhabitants of the other Provinces the percentage is about the same as throughout China.

PUBLIC WORKS AND SANITATION.

GENERAL CONDITIONS—CONSERVANCY AND RECLAMATION PROJECTS.

Improvements in the way of public works, sanitation, etc., have been retarded by reason of the unsettled political conditions that have obtained throughout the district and the stringency of the money market. Much might be done for the betterment of the district by providing good roads, railways, sanitation, lighting, etc.

With a view to effecting modern improvements in Canton a municipal council was established by the local authorities during 1918. A scheme of improvement was drawn up that will take several years to complete. The work of demolishing the city walls is now proceeding. It is planned to provide three parks and to build six modern roads, work on the roads being now under way. The scheme of improvement contemplates a tramway and a motor-car service.

Nothing has been done in the district toward improving the system of irrigation, and happily the need for such improvements is not imperative. The district, for the most part, is well supplied by innumerable waterways and canals, and the rainfall is abundant.

Nor, until the recent floods throughout the district, had anything modern been undertaken in the way of conservancy and reclamation. Owing, however, to the extensive damage wrought by the floods in the destruction of lives, property, and crops, the Government has been obliged to take the initiative in preventing the recurrence of such a disaster. Repairs to dikes and embankments are being undertaken in many places, but as yet the damage done has by no means been adequately repaired, and it is thought by many that if heavy rains occur during succeeding years, floods similar to that of 1915 will be experienced. The Kwangtung Conservancy Board, under the direction of Mr. Tan Hsueh Hong, with Mr. G. W. Olivecrona as chief engineer, has completed a topographic and hydrographic survey of the West River. This survey includes the establishing of a continuous sequence of levels from Wuchow, Kwangsi, to the sea along the West River proper, together with the establishment of 120 bench marks. Current velocity measurement has been taken in eight sections between Wuchow and the sea. The quantities of silt carried in suspension at different water levels have been determined. Fourteen gauging stations have been established in the West River, North River, and Foo River for observing the rise and fall of the water level. Four gauging stations in Kwangsi have been established for the observation of rainfalls. The possibility of constructing an additional outlet to the sea for the West River system has been investigated. Investigations similar to those conducted on the West River will be undertaken on the North River and East River systems.

DIFFICULTIES IN THE WAY OF STREET IMPROVEMENTS.

Wretched as are the conditions obtaining throughout the district with respect to good roads, practically nothing has been done in the past to better them. City streets have remained as they have always been—narrow, ill-lighted lanes, paved with granite slabs irregularly laid, or in some instances not paved at all. Traffic can be carried on through these streets only on foot, the use of wheeled vehicles being out of the question. There are no roads in the country districts, and communication between the various towns inland is carried on either by water or over narrow paths leading through rice paddies and barely wide enough to accommodate one pedestrian.

In Canton and in the larger treaty ports of the district, a few improvements are being effected in the way of widening the streets. There is one road in Canton along the river front, extending for a distance of 15,000 feet, that is well paved and sufficiently wide to permit of wheeled traffic. The cost of its construction and maintenance has been met by the local government. The government also proposed to widen the street opposite the foreign concession at Canton for a distance of a little more than 5,000 feet. A few miles of road have also been built to the northeast of Canton in the vicinity of White Cloud Mountain. The obstacles in the way of any substantial improvement of the streets, not only of Canton but of every city throughout the district, are almost unsurmountable. To effect any radical alterations would necessitate the tearing down of practically all existing structures and an adjustment of property rights innumerable.

ELECTRIC POWER PLANTS.

In 1906 the Kwangtung Electric Supply Co. was established at Canton. It is a limited stock company, one-third of the stock being vested in the provincial government and the remainder in the public. The original investment amounted to approximately $480,000 United States currency. The staff of the company consists of the managing director, assistant general manager, secretary-treasurer, engineer in chief, chief assistant engineer, and the directorate. These officers are elected by the stockholders, the government having little if any voice in their selection. The Canton plant was started with four 120-kilowatt vertical high-speed compound condensing steam sets. As the installation of those sets did not pay, a Diesel program was adopted, and during a period of nine years six machines of 200 horsepower, one of 300, and two of 500, making a total of 2,500 horsepower, were set up. The power company has now engaged an American engineer to design a steam-turbine station. Work on the first installation was progressing during the early part of 1919 and was expected to be completed in about 13 months. The machinery is of American manufacture throughout, and the plant will be up to date in every way. The main machinery of the first installation will consist of two 2,500-kilowatt turbo-alternators (2,200-volt, three-phase, 60-cycle), four 750-horsepower boilers, stokers, and condensers. The switchboard, electrically controlled, will be supplied by a well-known American company. The station will ultimately include two 5,000-kilowatt and two 10,000-kilowatt steam turbines. The Canton station will be the only strictly modern power plant in South China owned and controlled by Chinese capital. The future of this concern looks very bright from the standpoint of electric lighting. The building up of any great power load will depend largely upon the development of additional industries in Canton. The rate at which current can be profitably sold depends upon the development of the coal fields in Kwangtung Province. With the development of those fields numerous industries should spring up in Canton, and a lower price per unit would naturally mean an increased business.

In addition to Canton, electric power plants have been installed in many other cities and towns, particularly in the Canton delta, among which may be mentioned those at the following places: Kongmoon, a treaty port in the Canton delta (cost of installation, $18,768 United States currency); Sainam, Kwangtung Province, near the treaty port of Samshui (cost of installation, $8,993 United States currency); Tailong, Kwangtung Province (cost of installation, $3,910 United States currency); Sheklung, a station on the Canton-Kowloon Railway (cost of installation, $3,128 United States currency); Chanchuen, Kwangtung Province (cost of installation, $3,128 United States currency); Sunning City, Kwangtung Province (cost of installation, $13,000 United States currency); Sunchong, Kwangtung Province; Fatshan, Kwangtung Province; Shiuhing, Kwangtung Province; Kiungchow, Island of Hainan, Kwangtung Province; Nanning, Kwangsi Province; Wuchow, Kwangsi Province; Mengtsz, Yunnan Province.

The electrical equipment of these installations was purchased for the most part in the United States, while the engines came from England. The equipment for the plant at Sunning City was manufactured in Sweden.

The plants at Fatshan, Sainam, Shiuhing, Nanning, and Wuchow are owned and controlled by the government, the others by private companies.

WATER SUPPLY.

The Canton Waterworks Co. was founded in 1904–05, with a capital tal of $2,250,000 Canton currency, divided into 150,000 shares of $15 each. One-half of the shares was at first owned by the government and the other half by individual subscribers. From time to time, however, the latter have been purchasing more and more of the shares owned by the government until at the present time only 18,754 shares belong to the government, as compared with 131,246 shares owned by the public.

The supply was designed to serve 400,000 people, or 40,000 families of 10 persons each. At the present time it serves a population of a little over 200,000. The increase in the number of people served by the supply is about 1,500 monthly. The intake is from the river, 4 miles distant from the city. The output of water is 537,600 gallons per day.

The equipment comprises a purification plant, costing upward of $22,400 United States currency, and three pumping engines, costing $9,600 United States currency, each. Both the plant and the engines were purchased in Japan, and the former has been highly praised by Europeans who have visited the place.

The minimum charge for water to every consumer is $1.50 Mex. per month, and an additional charge of 15 cents Mex. is made for every person in excess of the number of six.

SEWERAGE.

In Canton there are but four streets provided with sewers, the total length of the latter being 3,000 feet. The cost of constructing the system was $11 Canton currency per foot, which was defrayed by the government from appropriations from the current revenues. It is impossible to estimate the actual population served, but it is only a small fraction of the population of the city.

In the interior towns of the district there are no sewerage systems in operation, except in so far as the numerous canals may be said to provide such a system.

FIRE PROTECTION.

In spite of annual losses from fire aggregating millions of dollars, the Chinese throughout the district have taken practically no steps to minimize these losses. Modern fire-fighting apparatus is unknown even in the larger cities, where the people depend for the most part on the old-fashioned bucket or barrel of water stowed away in some convenient part of the building.

No modern fire engines are in use at Canton, nor does the city maintain an up-to-date fire department. In case of an outbreak of fire, the only recourse is to hand pumps, with hose, distributed throughout the city. These pumps are moved with difficulty through the narrow streets and are often unable to project a stream of water to the tops of the highest buildings. Under these circumstances, it is not surprising that whole sections of the city are destroyed on the occasion of an outbreak of fire.

TREATY PORTS AND FOREIGN CONCESSIONS.

KWANGTUNG PROVINCE.

Canton.—The principal treaty port in South China is Canton, which is the capital of Kwangtung Province, situated about 95 miles by river and 112 miles by rail from Hongkong. It has a population variously estimated at from 900,000 to 1,500,000. The foreign concessions are situated on an island in the Pearl River, which was filled in and reclaimed by the British and French in 1859. On this island are located the consulates, banks, and foreign "hongs." The island is divided into the British and French concessions. Consulates general and consulates representing the United States, Great Britain, France, Germany, Russia, Japan, Portugal, Italy, the Netherlands, Norway, and Sweden are located on the island.

Canton was at an early date the great port in China for European commerce, and up to 60 years ago it enjoyed a monopoly of the commerce with foreign countries. The Arabs first came to Canton in the tenth century, the Portuguese in 1515, and later the Dutch and English. The British East India Co. established a factory or warehouse in Canton in 1684, and from that time until 1834 the company enjoyed a monopoly of the British trade with China. Since the cession of Hongkong to the British in 1842 and the opening up of the treaty ports in North and Central China, the importance of Canton as a center of foreign trade has declined, but it is still one of the richest and most populous cities in China and the political and commercial metropolis of the south.

Canton is easily reached from Hongkong. A daily steamboat service is maintained and, in addition, a railway runs between Canton and Kowloon, which is situated on the mainland opposite the island of Hongkong, the journey occupying about 3½ hours. Canton, as already mentioned, is the southern terminus of the Canton-Hankow Railway, which is, at the present time, running as far as Hsiukwan in the northern part of Kwangtung Province. When this railway is completed, it will undoubtedly increase the importance of Canton as a commercial center. Canton is also the terminus of a short railway running to Samshui, the junction of the West and North Rivers, about 30 miles distant from the capital.

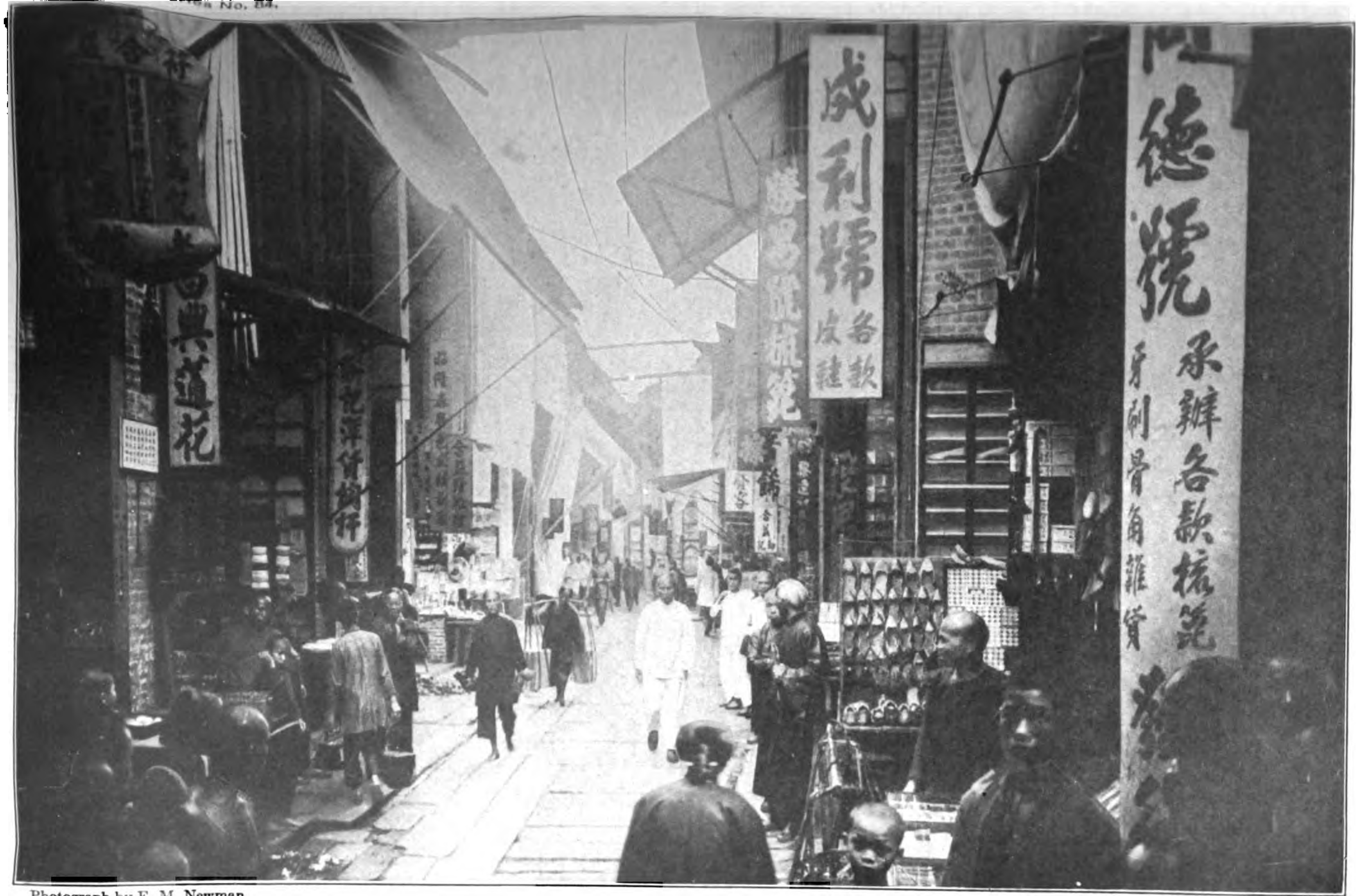
Canton has a number of up-to-date stores. With the recent formal opening of the Sun Co.'s 9-story building, modern in every respect, and the coming construction of the Wing On Building, the city will have four large department stores, the other two being those of the Sincere Co. and Chen Kwong & Co. The latter is the oldest of the four stores, having opened about 10 years ago.

Samshui.—A small port at the junction of the West and North Rivers. Population about 6,000. No foreign consulates or foreign mercantile establishments are located here. The place derives its importance from the large junk traffic up the West and North Rivers.

Kongmoon.—A city of considerable importance, located in the Sunwui district on a creek that runs into the West River. Population 60,000. It is distant about 70 miles from Canton and 85 from Hongkong, from which latter place it can be reached by steamer. No foreign consulates are located here.

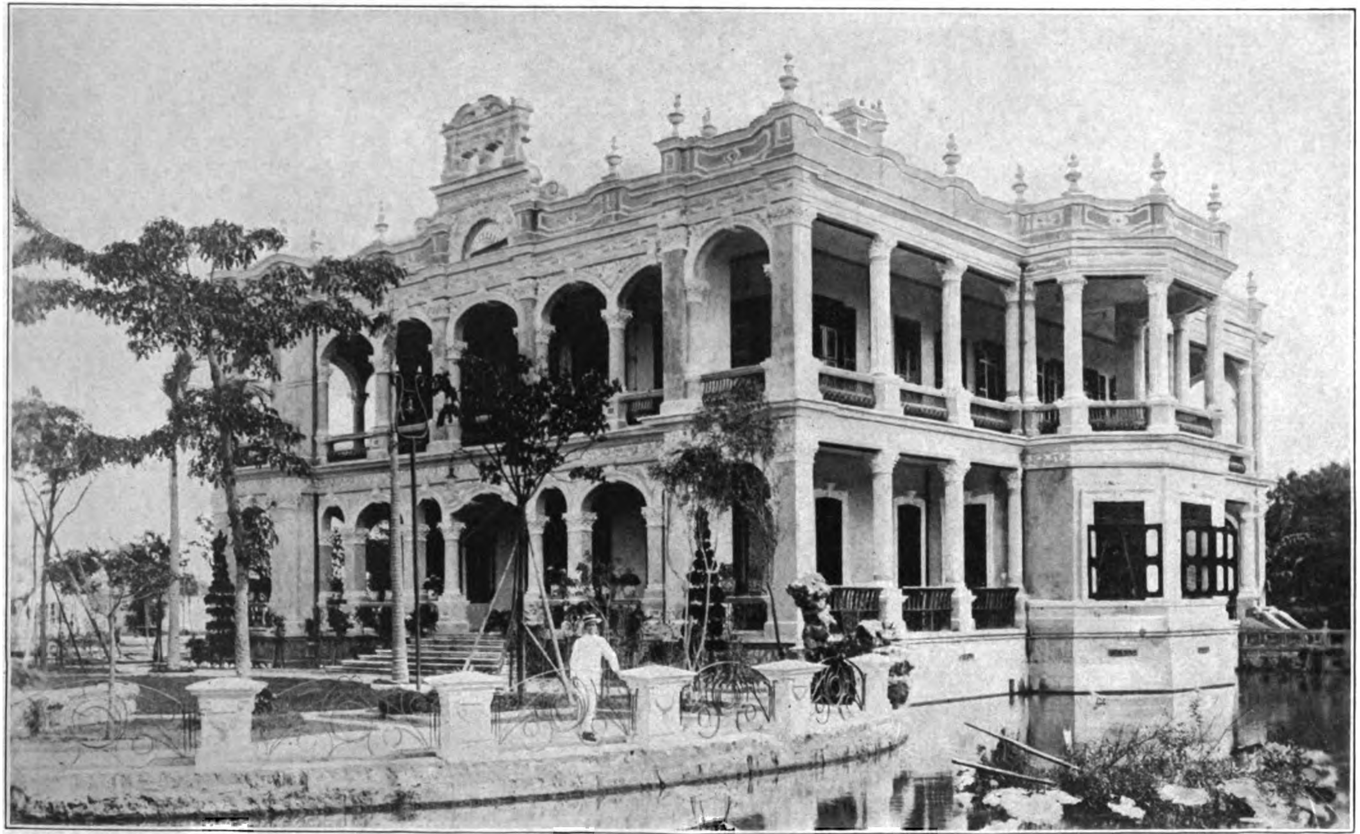
Pakhoi.—Situated in the southern part of the Province, in the Linchow District. British, French, and German consulates are located here. Population 20,000. Pakhoi was formerly a distributing center for large districts in Kwangtung, Kwangsi, and Yunnan Provinces. It reached its greatest prosperity in 1888, since which time it has declined considerably as a trading center, the reasons being the proximity of Haiphong and the opening of treaty ports on the West River in Kwangsi Province. The harbor is good and easily approached, entrance being effected through a large and deep channel, which ships have no difficulty in crossing at high water.

Hoihow, Island of Hainan.—Population 20,000. This port is situated in the northwestern part of the island of Hainan. The water in the bay is shallow, the tides are very variable, and typhoons are considerably to be feared. Its trade, however, is considerable, the principal exports being straw mats, cattle, pigs, poultry, hemp, medicines, brown sugar, and fresh eggs. The imports are cotton and woolen goods, kerosene oil, rice, beans and peas, flour, aniline dyes, and matches. Communication is chiefly with Hongkong, Pakhoi, and Swatow.



Photograph by E. M. Newman.

FIG. 4.—STREET SCENE IN CANTON.



Photograph by E. M. Newman.

FIG. 5.—RESIDENCE OF WEALTHY CHINESE, MACAO.

KWANGSI PROVINCE.

Wuchow.—Situated in the eastern part of Kwangsi Province, 220 miles from Hongkong, at the junction of the West and the Fu or Kwei Rivers. Wuchow has a population of about 60,000, and is the chief port of Kwangsi Province. Steamers reach Wuchow from Canton and Hongkong in about 2½ days. A British consulate is located here.

Nanning.—Population 40,000. Situated on the left bank of the Tso-kiang, a branch of the West River, 368 miles above Wuchow. Nanning is at present the capital of the Province of Kwangsi.

Lungchow.—Situated in the southwestern part of the Province, near the border of Tongking. Population 22,000. The bulk of the trade passing through Lungchow is from Tongking. No foreign merchants are located here. The French Government maintains a vice consulate at Lungchow.

YUNNAN PROVINCE.

Mengtsz.—In Linnganfu. Population 11,000. Is the chief port of Yunnan Province. The total trade of the port amounted in 1918 to 20,873,043 taels, or $24,901,540 United States currency. A French consulate is located here.

Hokow.—In Kaihuafu, directly opposite Laokai, in Tongking. A French vice consulate is maintained here.

Szemao-ting.—In Puerhfu, in the western part of Yunnan. Population 15,000. No foreign merchants are living here.

Tengyueh, or Momein.—In Yungchangfu. Population 10,000. No foreign merchants are living here. British consulates are located at Tengyueh and Szemao, largely on account of their proximity to the Burma frontier.

There are no treaty ports in Kweichow Province.

FINANCE AND BANKING.

The unit of currency in all transactions between foreigners in Canton is the Hongkong dollar. The unit of currency among the Chinese is Canton subsidiary coin, which varies between $105 and $125 subsidiary coin to $100 Hongkong notes, depending largely upon the course of trade. When imports are large, for which the Chinese dealer must pay in Hongkong notes, the tendency is to raise the price of the Hongkong dollar in terms of subsidiary coin. When few imports are coming in, the reverse is the case. Bank of China notes were also used in commercial transactions up to the summer of 1916, when the bank was forced to close its doors.

There is no exchange market in Canton, this being located in Hongkong. Therefore, the merchant, when selling or buying a bill of exchange, is not in a position to command quite so good a rate as in a larger settlement where the services of exchange brokers can be had.

The foreign banks usually pay interest on current accounts of 2 per cent per annum on balances of $500 and over, while on savings accounts and time deposits interest rates vary usually from 3½ to 5 per cent. The foreign banks usually charge 6 and 7 per cent on loans. The foreign banks located in Canton are the International

Banking Corporation, the Hongkong & Shanghai Banking Corporation, the Chartered Bank of India, Australia, and China, the Banque Industrielle de Chine,[1] the Bank of Taiwan, and the Banque de l'Indo-Chine. There is also an agency of the Banque de l'Indo-Chine established in Mengtsz, Province of Yunnan. All of these banks transact a general banking business, particularly in foreign exchange. The Asia Banking Corporation has announced its intention of opening a branch at Canton in October, 1919.

The three best-known Chinese banks in Canton are the Bank of China, the Bank of Communications, and the Bank of Canton, the two former being Government institutions and the latter a foreign-exchange bank conducted on modern lines, with head office in Hongkong and a branch also in San Francisco.

In addition, there are numbers of Chinese banks whose business is done entirely with the interior. These banks buy and sell small coin, make advances to the Chinese, and do a considerable exchange business with their correspondents located at various towns and cities in the interior of this and adjoining Provinces. These banks do not pay interest on current accounts, but on time deposits their rates of interest are about 6 per cent per annum. The rates of interest charged by the Chinese banks on short-term loans, etc., vary greatly but as a rule are about 10 per cent.

MANUFACTURING AND OTHER INDUSTRIES.

The development of manufacturing establishments along modern lines has not been very rapid in the Canton consular district. Although there are a number of plants equipped with modern machinery and turning out products in considerable amounts, the development along these lines has not been so great as in other parts of China. All the industrial concerns in this consular district are under native control and management, unless an exception is to be made in the case of the can-manufacturing establishments maintained by the different oil companies for making kerosene tins for their own products only. The largest industrial establishments in this district are owned and controlled by the Chinese Government.

KWANGTUNG GOVERNMENT CEMENT WORKS.

The Kwangtung Government cement works is one of the largest industrial concerns in Canton. It is located on the Honam side of the Pearl River and is the property of the Chinese Government. The whole represents an investment of about 2,000,000 taels. There is a cement-making plant and also a brick factory. The machinery in the cement plant is of German manufacture, purchased from Friedrich Krupp, of Magdeburg, Germany. Attached to the cement works there is a shop for the manufacture of casks. The wood for this purpose is brought from Wuchow and vicinity and made into casks at the works at a cost of approximately 60 cents Mexican each. During 1915 the cement plant produced about 145,000 casks (400 pounds to the cask), of which several thousand casks were exported to foreign countries, the remainder of the output being divided between Hongkong and Canton. The limestone used in the manufacture of the cement is brought to Canton in native junks from the quarries along the North River in the vicinity of Yingtak. The brick works, which are located on the same ground as the cement works, are also equipped with machinery of German make. The works have an output of 2,000 bricks per hour. In addition, various kinds of decorated and undecorated tiles are turned out. The clay, which is of good quality, is brought from the vicinity of Whampoa, 12 miles from Canton.

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[1] The Banque Industrielle de Chine is capitalized at 75,000,000 francs, of which one-third was subscribed by the Chinese Government.

A small electric-light plant has been installed in connection with the works.

The plant was opened in 1909.

YUE YICK SAND-LIME BRICK FACTORY.

The Yue Yick sand-lime brick factory is located at Mutmesha, a village about midway between Canton and Fatshan.

It is owned by a private Chinese company. The machinery and apparatus are entirely of German make and consist of crushers, mixers, four ordinary pressing machines and one rotating presser for fancy bricks, and four drying ovens. The pressing machines are worked during the day, at the close of which the bricks that have been turned out are piled on cars to be put into the ovens to dry during the night. The drying process takes 12 hours and is effected by a steam pressure of 130 pounds. A small electric-light plant has been installed to supply whatever electric light and power are required at the factory.

CANTON PAPER FACTORY.

The Canton paper factory is situated at Three-Eye Bridge, on the railway line running between Canton and Fatshan. The machinery is of English make, purchased from the firm of James Bertran & Son, of Edinburgh, Scotland. It has only a limited capacity, and, besides supplying the Government departments with paper, it sells only a small stock for local consumption. This plant was formerly owned by the Chinese Government but has recently been put under private management. There is also a paper mill located at the treaty port of Kongmoon.

KWANGTUNG GOVERNMENT MINT.

The Kwangtung Government mint is located in the eastern suburbs of Canton and is equipped with modern machinery. The mint during 1915 produced 2,743,633 silver dollars, 22,332,000 20-cent silver pieces, 688,000 10-cent silver pieces, and 6,350,000 1-cent copper pieces.

KWANGTUNG GOVERNMENT ARSENAL AND POWDER FACTORY.

The Kwangtung Government arsenal and powder factory is located at Shekching, about 5 miles from Canton, and is equipped with up-to-date machinery of German manufacture. Recently, however, some orders have been placed in the United States for milling machinery, planers, shapers, grinding machines, and grinding materials. The output of the factory consists of automatic revolvers and rifles of German pattern, bayonets, quick-firing guns capable of shooting 40 shots per minute, cartridges, and powder, both black and smokeless. The material for the manufacture of cartridges—principally copper—is purchased in Japan. At the time this report was written the arsenal was in need of the following equipment: Rough forgings for rifles, rifle barrels of twisted steel (recent purchases consisted of ordinary forged steel barrels in the rough, which had to be bored), rifle boring lathes, milling machines, shapers, hammers, sawing machines for sawing steel, and wooden butts. The latter are at present obtained in the north of China, walnut wood being used.

KWANGTUNG GOVERNMENT TANNERY.

The Kwangtung Government tannery was an institution started primarily for supplying leather for the Chinese troops. A considerable amount of machinery was purchased and the plant commenced operations, but for several years it has been abandoned.

OTHER ESTABLISHMENTS.

Among the other Canton manufacturing establishments is the Canton ice factory for making artificial ice. The machinery for this plant was purchased in Japan.

There are also several match factories located in Fatshan and Canton. These manufacture only the so-called "safety matches," which are put up in small boxes 2¼ by 1½ by ⅝ inches. The larger match that is called in America the "parlor match" is unknown in this district. Match-making materials and materials for the boxes are imported for the most part from Japan.

There are also several soap factories making bar soap. The products of these factories are for local consumption, and practically none of them are exported abroad.

The Kwang Nam Dock Co. has reclaimed land and established a shipbuilding yard near Macao fort. Ships up to 3,000 tons can be built. More than 1,000 workmen are already employed.

The oil-engine business has been making rapid progress and promises to become an important factor in the industries of Kwangtung. During recent years numerous flat-bottom launches and native craft, specially built for operation in the shallow rivers of Kwangsi Province and in the Canton Delta, have been constructed and fitted with oil engines which have given satisfactory results.

From a reliable source it is learned that the firm of Hip Tung Wo, capitalized at $120,000 local currency, employs more than 100 workmen, under the supervision of native engineers, in the construction of these oil engines. Certain materials for the manufacture of shafts, such as huge lathes, etc., which can not be made locally, are purchased either in the United States (as evidenced by orders placed with foreign commission houses in Canton) or in Japan. In consequence of this the natives are at present able to manufacture shafts only 4 or 5 inches in diameter. Larger shafts, if needed, are made in the Hongkong & Whampoa Dock, Hongkong, or ordered in America.

The formation of a Chinese-American silk company, with a capital of $1,000,000, is announced. The concern will have offices in Seattle, Wash., and it is intended to import Chinese silk piece goods from Canton. It proposes to build a factory at Honam, an island opposite Canton, for the weaving of fine grades of plain and fancy silks.

CRUDE NATIVE INDUSTRIES.

The weaving of matting and mats is one of the chief industries in the districts of Tungkun and Lintan, as well as in other parts of Kwangtung. In addition to the matting exported, a vast amount of matting is used by the Chinese. Among the uses to which it is put locally may be mentioned wrappings and coverings for various kinds of goods, awnings, sails, etc. A very tall grass (*Arundo mitis*) is used in the weaving of matting exported abroad, but the people use other grasses for weaving and coarser kinds of matting. The matting loom used about Canton is an upright framework, with a cylinder above and below over which the warp of hempen thread runs. The woof is plaited in. Each weaver has an assistant who, as the weaver opens the warp, puts in the straw. The selvage is all turned in by hand and is made in the shape of a figure 8, over two warps, thus insuring against any possible loosening through wear and tear.

The manufacture of incense sticks, often known as "punk" in the United States, is quite an extensive industry. The materials used in the manufacture are sandalwood, various kinds of Chinese wood, sugar, Chinese wine, cloves, etc. The various kinds of wood are reduced by hand to a dust. The sugar and other ingredients used are ground to a fine powder in millstones. The materials are then mixed in an urn, the Chinese wine being used to moisten them, and are thoroughly kneaded. The whole substance is then rolled onto small bamboo sticks. Many kinds of incense sticks are manufactured, the best grades being made of bamboo sticks and varying in size. Some are as long as 3 feet, while the shortest are about 1 foot. Others are made in the shape of spirals. When lighted they give off a very aromatic odor and are used in vast quantities in Chinese religious observances.

The manufacture of firecrackers is a household industry employing large numbers of people, chiefly women and girls. The firecrackers are made of gunpowder rolled up in coarse paper. Fuses are inserted and the crackers are plaited together and made into packages.

There are a number of steam rice mills in Canton for the polishing of rice, and also for the grinding of rice flour.

There are some machine and blacksmith shops located on Honam Island and other places in Canton. These shops turn out marine engines and various other kinds of products in iron and steel. The workmen are considered to be very clever in copying any machine (if it is not too complicated) of which they may be given a model.

Other native industries of Canton that give employment to large numbers of people in the aggregate are: The weaving of cotton and silk cloth by hand looms; the manufacture of brass, pearl, and bone buttons; the decorating of chinaware, which has been shipped in its plain state to Canton from other parts of China; the making of palm-leaf fans, blackwood furniture, glass bangles or imitation jade (these are used as bracelets by Chinese women and are also exported in large quantities to India, where they are used for the same purpose); the weaving and embroidering of grass cloth and silk; the carving of ivory and jade; the making of Chinese wine, or samshu, which is made chiefly from rice (Lungshan and Fatshan are the chief centers of this industry); the coring of rattan and the making of various kinds of rattan ware; the making of a Chinese sauce called "soy," which is made from a certain bean which has been boiled slowly and to which wheat or barley flour is added (soy is exported for the use of Chinese living abroad and also for the making of certain foreign sauces and condiments); and the making of an infinite number of articles from bamboo, this last being a considerable industry. The manufacture of bamboo articles is carried on at various places, but the center is in Sunwui district of Kwangtung Province.

COMMERCE OF THE PORT: INTRODUCTORY SUMMARY.

The table below gives the total imports and exports, foreign and Chinese, through the Maritime Customs at Canton during the years 1904, 1913, and 1917[a]:

Imports and exports.	1904	1913	1917
Imports of foreign goods:			
From foreign countries and Hongkong	$17,136,674	$22,889,678	$30,104,352
From Chinese ports	68,249	127,056	324,251
Total foreign imports	17,204,923	23,016,734	30,428,603
Reexports of foreign goods:			
To foreign countries and Hongkong	34,039	133,525	427,102
To Chinese ports	37,865	369,938	508,590
Total foreign reexports	71,904	503,463	935,692
Net total foreign imports	17,133,019	22,513,271	29,492,911
Imports of Chinese products	18,103,123	15,239,759	22,722,632
Reexports of Chinese products:			
To foreign countries and Hongkong	317,636	687,792	99,041
To Chinese ports	13,986	94,706	884,015
Total Chinese reexports	331,622	782,558	983,056
Net total Chinese imports	17,771,501	14,457,201	21,739,576
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	25,878,047	39,587,454	53,894,550
To Chinese ports	2,740,503	4,287,913	5,945,499
Total exports of local origin	28,618,550	43,875,367	59,840,049
Gross value of the trade of the port	63,926,596	82,131,860	112,991,284
Net value of the trade of the port	63,523,070	80,845,839	111,072,536

EXPORT TRADE.

The export trade of Canton has showed a healthy growth. In 1904 the total value of exports was $28,950,000, United States currency, while in 1910 it had risen to $38,768,000 and in 1913 to $44,658,000. In 1915 it dropped back to $29,612,000, or only a little more than in 1904; but in 1917 it had increased to $60,823,000.

Raw silk forms the most valuable article of export from Canton. During the past 10 years exports of this article have remained about the same, amounting to 4,500,000 to 5,000,000 pounds per annum. A bale of silk weighs 80 catties, or 106⅔ pounds, and consists of 10 bundles or "books" of silk weighing 8 catties each. Each "book" contains a certain number of skeins, depending on the size of the thread. The silk season starts at the beginning of May, when the first crop of cocoons is ready for the market. Six crops of silk are produced during the year, the last crop coming on in October or November. There are a number of qualities, ranging from "Superior A" to "Extra Extra B." The principal markets are New York,

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[a] EDITOR'S NOTE.—The year 1917 is the latest for which it is possible to obtain this summary of values. In the sections on "Export trade" and "Import trade," however, the reader will find 1918 figures.

Lyon, and London. Most of the silk firms doing business in Canton are of French or British nationality and make a specialty of that commodity.

In former years tea was one of the leading articles of export, but it has declined considerably in recent years owing to the fact that growers could not be brought to understand that a better quality of leaf was desirable. The adulteration of tea with sand and iron filings was in former years a practice by no means uncommon, and this led to rejections at home and consequent decline of the business. Nevertheless, about 3,300,000 pounds were exported in 1915. In 1917 the amount was 1,990,000 pounds.

The exports of matting have been subject to considerable changes during the past decade. In 1904 there were exported 389,000 rolls; in 1910, 315,792 rolls; in 1913, 157,259 rolls; in 1915, 66,200 rolls; in 1917, 44,146 rolls; and in 1918, 21,542 rolls. This decrease has resulted from a variety of causes, the chief of which are the decline in the quality of the matting straw, a decrease in the popularity of Chinese mattings in the United States, and, latterly, the cutting off of the German and Austrian markets and the enormous increase in freight rates. The chief producing centers are the districts of Lintan and Tungkun, in Kwangtung Province. Quantities of matting from Cochin-China are also bought by Canton dealers and exported abroad. The standard matting is known as the Lintan 116 warp. One roll of matting contains 40 square yards.

Exports of firecrackers and other fireworks have also fluctuated considerably in the past, depending of course on the demand at home, the local supply of saltpetre, etc. In 1904 there were exported about 4,200,000 pounds; in 1910, 10,367,000 pounds; in 1915, 5,643,000 pounds; in 1917, 4,943,000 pounds; and in 1918, 4,161,000 pounds. Firecrackers are packed as follows: They are divided according to count, such as 40/64, 100/24, etc. A 40/64 means 40 small packs to a paper box, each pack containing 64 crackers. Similarly 100/24 means 100 small packs to a paper box, each pack containing 24 crackers. After this 8 paper boxes are packed in a wooden box, which is matted and referred to as a "mat." Although the number is usually 8, it should be added that 4, 6, or 12 paper boxes may be packed in a mat. Shipments are made to the United States, Great Britain, and the Continent of Europe. The source of the supply of saltpetre for the manufacture of firecrackers has, for some time, been India, and the placing of an embargo on this commodity by the British Government has tended to increase materially the price of firecrackers.

The exports of cassia buds, twigs, lignea, and refuse ordinarily amount to 14,000,000 to 20,000,000 pounds per year. Cassia is packed in both bales and cases, each weighing ½ picul (66⅔ pounds).

The export trade of the Canton consular district—except for the Province of Yunnan, which trades mostly with Tongking and Burma, and part of the Province of Kweichow, whose trade is with Szechwan and the Yangtze—all flows eastward and finds its outlet at Hongkong or Canton. The foreign exporting houses of the district are located in either one or both of these two cities. Practically all of the firms in Hongkong doing an export business in China produce have a branch in Canton. The various Chinese products, such as mattings, cassia, firecrackers, fans, bristles, human hair, etc., are brought from the interior points by the Chinese dealer and sold to the foreign exporter, either f. o. b. Canton or c. i. f. Hongkong. If goods are sold by the Chinese dealer to the exporter f. o. b. Canton, the former pays the cost of transportation from the interior, the inland likin charges, and the export duty. If the goods are sold c. i. f. Hongkong, the dealer pays in addition the river freight and transshipping charges. One of the disadvantages under which exporters in Canton work is the fact that the freight and the exchange markets are located in Hongkong. Exporters in Canton are compelled to look to Hongkong for information regarding any changes that may occur in freight rates. This has been an important item during the years just passed, when freight rates have been subject to sudden alterations.

The following table gives the quantities and values of the principal exports (including reexports) from Canton during the years 1904, 1913, and 1918:

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Bags, gunny..........number..	1,845,045	$75,220	1,493,871	$70,029	2,223,660	$204,874
Bristles..............pounds..	650,533	84,827	121,066	25,596	697,600	557,945
Canes.................number..	740,257	8,561	1,173,012	14,131	(a)	(a)
Cantharides...........pounds..	21,066	5,191	6,266	1,349	23,867	15,571
Cassia buds, lignea, refuse, twigs...........do....	14,587,733	789,703	22,228,666	1,297,441	20,404,667	955,307
Chinaware:						
Coarse.................do....	916,800	47,254	2,081,333	153,195	1,267,867	205,217
Fine....................do....	361,733	54,991	405,466	81,580	129,333	56,866
Fans, palm leaf:						
Decorated........number..	115,236	3,060	326,428	7,479	....	36,168
Trimmed.............do....	6,580,800	105,731	4,103,528	51,823		
Untrimmed...........do....	4,911,790	19,934	2,833,060	14,891		
Feathers:						
Bird....................do....	3,532,392	23,555	2,801,960	9,536	(a)	(a)
Duck, fowl, etc...pounds..	384,533	17,546	42,266	5,345	1,156,983	88,756
Firecrackers and fire-works...................do....	4,200,666	469,452	8,638,000	1,110,345	4,161,067	1,224,904
Glass bangles............do....	1,558,933	149,588	913,200	105,137	....	158,561
Hair, human............do....	287,066	49,631	1,590,933	356,662	441,733	139,843
Matting....................rolls..	389,330	1,798,704	157,259	878,637	21,542	215,877
Medicines..............pounds..	3,568,533	125,505	4,157,733	182,395	4,491,467	365,982
Paper, first quality.......do....	2,299,200	223,733	621,466	68,308	b 2,205,867	b 257,649
Rattans, split............do....	126,266	5,232	17,466	909	(a)	(a)
Silk:						
Raw, white, not re-reeled and not steam filature......do....	388,666	945,444	211,600	554,871	184,933	1,052,818
Raw, white, steam filature...............do....	4,602,800	12,631,072	6,057,200	20,094,785	4,460,933	31,482,348
Cocoons, whole......do....	314,533	168,877	824,533	239,139	419,333	441,304
Cocoons, pierced.....do....	147,333	36,416	275,066	97,851	347,733	229,258
Refuse or waste......do....	3,508,933	969,131	5,284,000	1,979,193	5,730,800	3,663,222
Piece goods...........do....	1,056,666	3,773,777	1,240,266	6,102,902	1,080,933	8,681,648
Tea, black...............do....	3,362,000	380,072	1,836,666	319,368	2,003,067	571,546
All other articles..............	....	5,987,875	....	10,835,028	....	(a)
Total......................	....	28,950,172	....	44,657,925	....	(a)

[a] Figures for 1918 are not available.

[b] These figures are for all kinds of paper.

The following table shows, by quantity and value, the articles declared at the Canton consulate general for exportation to the United States during the calendar years 1917 and 1918:

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value.
Antique pictures......cases	7	$2,592		
Bristles......pounds	27,467	31,096	63,975	$149,885
Chemicals and drugs:				
Blistering flies		502		
Galangal		100		
Copper ware, enamel......cases	3	189	3	457
Earthen, stone, and china ware:				
Chinaware......do	934	24,485	426	8,734
Curios......do	9	1,393	1	111
Explosives: Firecrackers......pounds	2,599,281	330,739	144,864	16,418
Fans:				
Palm-leaf......dozen	174,004	39,332	111,916	13,798
Feather......cases	1	159		
Feathers......pounds	117,442	34,471	657,867	62,154
Fiber, vegetable and textile, manufactures of:				
Grass cloth......cases	4	398		
Palm fiber or reeds......bales	132	1,812	50	831
Straw cuffs......pairs	182,500	2,436		
Work pockets		287		
Gallnuts......pounds			20,000	3,779
Ginger (preserves)......do	6,262	1,011		
Ginseng......do			2,267	129
Glass, manufactures of:				
Glass neck lace......cases	4	1,008		
Glassware......do	58	2,246		
Glue......do	6	334		
Hair, human......pounds	30,554	15,907	61,363	28,969
Hides, raw......do	101,600	38,020	25,770	9,621
Joss sticks......cases	3,441	11,040	20	65
Matting......yards	1,891,652	195,638	742,680	102,080
Mats or rugs......do	117,657	25,390	53,200	8,768
Metal, manufactures of......cases	9	679		
Moss and sea grass......bales	9	116		
Oil:				
Aniseed......pounds	5,100	8,672		
Cassia......cases	25	1,297		
Wood......pounds			154,960	24,894
Ores:				
Wolfram......tons	180	142,623	1,641	1,546,925
Molybdenite......pounds			360	403
Paper......do	3,329	961	1,860	354
Paper, lithographic......cases	90	1,525		
Precious stones: Jadeware......do	21	13,661	14	1,757
Seeds:				
Aniseed......pounds	20,600	3,456		
Star aniseed......do			2,000	3,577
Silk, and manufactures of:				
Raw silk......do	2,282,375	10,168,978	1,670,161	7,905,465
Waste silk......do	2,879,032	1,828,264	4,330,149	3,015,258
Cocoons, pierced......do	4,966	2,010	93,800	52,521
Silk goods......cases	21	3,031	9	7,316
Embroideries......do	293	69,631	83	16,361
Punjum books reeled from refuse cocoons......pounds			6,000	6,230
Spices: Cassia—				
Buds......do			33,332	3,015
Lignea......do	66,667	5,572		
Saigon Promi......do	6,667	3,745	13,332	4,019
Selected broken......do	862,722	57,528	4,678,804	185,964
Tea......do	800	219		
Tobacco leaves......do	1,286,670	371,302	152,128	53,388
Wood, manufactures of:				
Bamboo—				
Baskets......cases			2	154
Split......bales	15,901	37,391	11,823	26,461
Ware......cases	130	6,649	37	2,995
Blackwood ware......do	512	13,328	60	2,807
Canes......bales	389	1,785	242	1,763
China seeds......do	2,906	35,187	4,393	64,657
Lacquered ware......cases	41	1,758		
Rattan ware......do	19	338	8	475
Woodenware......do	195	16,073	1	143
All other articles		5,174		607
Total		13,554,938		13,426,599

Exports to the Philippine Islands were valued at $90,583 in 1918, as compared with $48,763 in 1917. To Hawaii there were no exports in 1918, and the value in 1917 was only $1,733.

In order to provide a basis of comparison with prewar conditions, the following table is given, showing the value of the declared exports from Canton to the United States during 1913, the last normal year before the outbreak of hostilities:

Articles.	Value, 1913.	Articles.	Value, 1913.	Articles.	Value, 1913.
Antimony	$10,957	Matting	$751,378	Wood, manufactures of—Continued.	
Bristles	20,230	Mats or rugs	26,228	Camphor-wood trunks	$193
Chinaware	13,773	Paper	1,553	Canes	7,616
Explosives: Fire-crackers	231,210	Silk, and manufactures of:		China reeds	34,829
Fans, palm-leaf	42,064	Raw	5,881,582	Rattan	506
Feathers	3,735	Waste	654,752	Teakwood ware	2,735
Fiber, manufactures of	1,368	Silk goods	11,024	Woodenware	2,625
Ginger (preserves)	7,446	Embroideries	78,943	All other articles	11,238
Hair, human	10.335	Spices: Cassia	150,264	Total	7,995,770
Hides	212	Wood, manufactures of:			
India-rubber, shoe, scrap	1,729	Bamboo, split	12.891		
Joss sticks	13,381	Blackwood ware	10,973		

NOTE.—Exports to the Philippine Islands were valued at $8,305.

Of the exports from the other ports of this district, the most important is the tin export from Mengtsz in the Province of Yunnan. In 1910 this export amounted to 6,099 long tons and in 1914 to 6,681 long tons.

IMPORT TRADE.

The import trade of Canton in foreign goods has shown great increases. It rose from $9,847,980 in 1896 to $20,800,000 in 1906 and to $24,000,000 in 1914. Owing to the causes directly and indirectly attributable to the European war, the imports of foreign goods declined in 1915 to $15,834,000, but increased in 1917 to more than $29,500,000 and in 1918 to more than $32,500,000.

The imports of native goods from various ports in China, chiefly Dairen, Newchwang, Tientsin, Hankow, and Shanghai, have closely followed the imports of foreign goods. The importation of native goods in 1896 amounted to $11,340,000, in 1906 to $20,800,000, in 1914 to $14,800,000, in 1915 to $18,000,000, in 1917 to $21,740,000, and in 1918 to $21,415,439.

The gain in imports has been fairly steady, the high-water mark being reached in 1918.

One of the chief items in the import trade that has shown a steady diminution is opium. In 1904 there were imported 1,260,380 pounds of foreign opium, while in 1913 the amount had fallen to 317,252 pounds and in 1915 to 72,644 pounds. On account of the restrictions on its importation, the price of the drug steadily advanced during recent years. In 1912 the market value per picul of Patna opium was 1,850 taels ($1,369 gold); in 1914 it had risen to 5,380 taels ($3,605) and in 1915 to 6,100 taels ($3,733). As will be seen from the figures given, the trade in foreign opium has been gradually extinguished. The franchise of the opium combine expired on March 31, 1917, and the importation of foreign opium was discontinued from that date.

The facilities for the distribution of foreign commodities throughout the district increased enormously during the past few years. At present, during normal times, almost every town in the Canton delta is reached regularly by native steamers or steam launches carrying both passengers and cargo. The West River and its tributaries form a great highway for reaching the more remote districts of Kwangsi Province. In Yunnan the Yunnanfu-Tongking Railway also serves as a carrier of foreign goods from Tongking into the interior of Yunnan. On the other hand, the Province of Kweichow is one of the most difficult of access, it being very mountainous and the highways of approach both by land and water being comparatively few. It is also one of the poorest Provinces in China and offers very little field for the introduction of foreign imports. Canton is not a distributing point for any very large area. The Chinese merchants living at Shiuhing, Wuchow, Nanning, and various places along the West River, and also at Kongmoon, Shiuchow, etc., prefer to deal directly with the Hongkong importer rather than with Canton. The reason for this is not far to seek. Goods exported from Hongkong to Wuchow, Nanning, or Kongmoon pay only the one import duty at the port of entry, whereas, inasmuch as there are no bonded warehouses in Canton, goods imported into Canton and reexported to the interior would have to pay, in addition to the import duty, the 2½ per cent transit duty.

Practically all firms in Canton employ Chinese compradors whose functions differ in no respect from those in other parts of China. The native customers of the firm are handled by the comprador, and he employs his own staff of subordinates.

As regards financing and credit, the terms of credit given in other parts of China apply also to this consular district. There are no special terms peculiar to the district.

As stated above, Canton is not a distributing center for a very large district. The goods imported there are for consumption in Canton, Fatshan (a city of 600,000 people situated about 12 miles distant), and other cities and towns within a radius of approximately 30 to 40 miles. The bulk of the goods are imported from Hongkong by water. All steam vessels are controlled by the Maritime Customs and pay the rates of duty laid down in the customs tariff. However, there is a large amount of traffic in native goods that is carried on by junk and other native craft. This traffic is not controlled by the Maritime Customs but by the Native Customs and the various likin stations. No fixed tariff or schedule of charges is published.

In this connection a few remarks with regard to customs dues and likin charges may be made.

All foreign goods must be passed through a Chinese Maritime Customhouse. These customhouses are located only at treaty ports. At each treaty port there is also located a head likin station, which controls the different situations throughout its district. The importer can obtain a transit pass from the Maritime Customs by a further payment of one-half of the import duty. This transit pass will enable him to ship into the interior without having to pay any likin; in other words, all likin and sublikin stations throughout the district will recognize such a pass and not levy any further taxes. These transit passes can only be obtained by the importer after he has given the Maritime Customs the date of importation, the name of the steamer, the marks, value, etc., as declared by him originally. Transit passes can only be obtained for goods sent into the interior in the original package in which they were imported. After goods have been imported into a treaty port and it is desired to make shipment to the interior where it is only necessary to pass one sublikin station, a saving can be effected by not taking out a transit pass and only paying the likin tax, which is one-fourth of the import duty. But should it be necessary to pass more than one sublikin station, then another likin tax of equal amount must be paid, and for each successive sublikin station the same charge is levied. It therefore pays the shipper to take out transit passes where goods are shipped to places in the interior other than in the immediate vicinity of treaty ports.

Shippers to points in the interior, particularly along the West River, must take into consideration the ultimate market of their goods before deciding at which port they will pass the Maritime Customs. For instance, a shipper desires to ship goods from Hongkong to be used or sold in the Nanning district of Kwangsi. The most expeditious plan would be to ship by steamer from Hongkong to Wuchow and transship from Wuchow to Nanning. In such a case no regard need be paid to the customs until the goods arrive at Nanning, where the regular import duties will be levied, after which the goods can either be sold or forwarded into the interior either by transit pass or through the likin stations, as best suits conditions. In some cases where firms have no authorized representative at Nanning, the duty must be paid at Wuchow and the goods shipped to Nanning under the exemption certificate, which is recognized by the Nanning customs and which will permit delivery being taken of the goods at Nanning without further payment, but by so doing the shipper can not secure a transit pass for shipment into the interior beyond Nanning, and it will be necessary to pay the likin taxes.

Original importers may obtain drawbacks for customs duties that have been paid, should the goods be found to be unsalable in the market of the treaty port to which they have been shipped. For instance, goods are often imported into Canton for which there is no market. Afterward it is found that they can be sold at Hongkong. In this case, the original importer makes to the Maritime Customs an application for a reexport permit, giving the date of original entry, name of steamer, marks, etc. (always provided that the goods are in the original package). Upon verification by the customs a drawback, equal in amount to the duty paid in customs taels, will be given.

As regards packing, it must be borne in mind that the climate of South China is, during a great part of the year, very damp and humid, and goods that are liable to collect rust or mildew should be packed in waterproof coverings. The bulk of inland transportation throughout the district is by water, either by steamer, by steam launch, or by native junk.

The importation of cotton piece goods, which forms one of the principal items in the import trade of this district, is handled chiefly by British firms in Hongkong, who export to the Chinese dealers in Canton, Kongmoon, Wuchow, Nanning, and other places in the interior. The bulk of the trade is in Manchester goods, American cotton goods not having been sold on this market to any extent.

The demand in gray goods is chiefly for light-weight shirtings, 7 to 9 pounds. White shirtings are, however, the most important item in the piece-goods trade of Canton. The white shirtings sold are generally 36 inches wide, 43 yards per piece, and 50 pieces are packed in a tin-lined case. The principal demand is for heavily back-filled and medium finished goods. There is also a fair demand for printed goods, which is filled also from Great Britain. Of the imports of cotton yarn, it is to be noted that the Japanese yarn is gradually displacing the Indian yarn.

In metal goods there is a considerable market at the present time for such articles as steel plates, wire nails, galvanized wire, tinned plates, bamboo steel, iron and steel bars, lead, etc. Since the beginning of the war in Europe an increased percentage of this class of goods has come from the United States. In metal goods, as well as in piece goods, the importing houses are for the most part located in Hongkong.

The following table gives the quantities and values of the principal foreign goods imported at Canton during the years 1904, 1913, and 1918:

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
OPIUM.						
Benares...............pounds..	154,266	$489,591	34,412	$471,719	....	....
Malwa...................do....	123,333	446,084	132,227	1,681,753	....	....
Patna...................do....	976,533	3,188,537	150,613	1,903,293	....	....
COTTON GOODS.						
Shirtings, gray, plain...pieces..	163,850	241,990	117,158	211,188	81,138	$444,680
Shirtings, white, plain, English..................do....	166,783	429,299	252,837	751,836	135,928	1,123,783
T-cloths.................do....	42,818	60,475	37,543	63,893	43,232	165,378
Handkerchiefs..........dozen..	54,018	16,928	111,287	25,801	88,806	38,839
Cotton yarn:						
English...........pounds..	400	79	5,600	1,300	(a)	(a)
Indian...............do....	13,244,600	1,665,162	9,658,523	1,327,901	5,341,066	2,070,705
Japanese.............do....	9,066	1,109	1,310,523	166,311	3,785,200	1,505,458
WOOLEN GOODS.						
Blankets and rugs.....pounds..	24,673	7,328	139,597	52,265	69,363	117,713
Camlets, English.......pieces..	6,777	50,990	2,643	27,212	717	23,669
SILKS.						
Silk piece goods, plain, brocaded..............pounds..	27,776	23,658	4,773	12,237	204,400	13,939
METALS.						
Brass and yellow metal. pounds.	926,266	104,475	971,867	137,379	638,132	213,873
Copper...................do....	5,648,000	799,968	344,133	55,572	267,199	115,783
Lead, in pigs and bars...do....	4,492,666	126,762	3,238,933	108,357	3,104,000	859,105
Tin slabs.................do....	165,466	35,631	34,800	8,482	9,333	8,398
SUNDRIES.						
Belting, machine..................	....	2,559	....	5,286	....	39,876
Bricks and tiles.........pieces..	99,932	3,593	152,086	7,275	(a)	(a)
Cement...............pounds..	3,996,466	19,778	10,244,133	58,106	11,724,000	115,399
Cigarettes..........................	....	91,830	....	278,383	....	1,713,975
Clocks................number..	34,485	22,702	52,790	47,518	24,056	36,401
Coal................long tons..	67,664	296,689	74,817	335,667	25,504	449,413
Crucibles..........................	....	21,110	....	1,434	....	12,993
Dyes, aniline......................	....	124,564	....	136,696	....	135,112
Electrical materials...............	....	28,765	....	72,163	....	257,687
Flour.................pounds..	33,760,133	626,673	56,961,866	1,228,072	2,380,667	87,626
Fruits and vegetables..........	....	28,139	....	27,827	....	9,780
Ginseng, American:						
Clarified.............do....	213	837	12,889	40,860	896	3,654
Crude.................do....	521	962	1,180	1,107		
Glass, window..........boxes..	14,990	43,399	20,352	49,756	8,809	88,488
Graphophones and accessories..	....	1,076	....	13,131	....	16,815

a Figures are not available for 1918.

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
SUNDRIES—continued.						
Hams and bacon......pounds..	37,733	$4,667	45,866	$6,387	40,983	$11,264
Hardware....................	....	5,438	....	39,282	....	43,265
Hosiery................dozen..	84,648	53,772	126,715	75,666	81,739	17,765
Lamps and lamp ware.........	....	22,070	....	17,785	....	57,189
Leather, calf, kid, patent, and colored..............pounds..	400	380	24,533	44,928	(a)	(a)
Looking glasses and mirrors...............number..	101,116	3,171	87,165	3,064	....	9,662
Machinery and parts of........	....	70,871	....	73,808	....	(b)
Machines, sewing and knitting, parts and accessories.........	....	15,641	....	79,996	....	36,598
Matches, wood, Japan...gross..	1,287,173	213,915	452,967	122,824	337,351	182,556
Meats, canned..........dozen..	2,084	3,712	259	687	....	3,742
Medicines....................	....	129,013	....	322,267	....	(b)
Milk, condensed, in tins..do....	22,296	21,338	64,806	82,033	56,427	161,561
Munitions of war..............	....	82,502	....	226,017	....	(b)
Oil, kerosene:						
American.........gallons..	6,110,620	796,116	8,953,382	997,229	5,506,494	1,562,530
Sumatra.............do....	3,256,797	360,468	1,630,871	174,422	2,198,289	643,907
Paper, printing.......pounds..	10,312,133	350,213	13,917,866	393,260	4,353,200	503,295
Quartz (corundum) sand.do....	291,866	7,945	416,533	8,996	(b)	(b)
Railway plant and materials...	....	291,940	....	28,017	....	(b)
Rattan core...........pounds..	1,700,533	64,731	1,012,000	31,149	426,933	19,710
Rattans, whole..........do....	3,259,333	96,803	5,197,466	159,979	4,294,667	266,291
Rice....................do....	15,054,266	171,489	48,893,200	838,803	6,982,400	196,171
Shoes and boots:						
India rubber........pairs..	306,774	156,031	1,510	518	1,230	1,396
Leather.............do....	....	....	21,356	10,406	4,676	11,595
Singlets and drawers....dozen..	9,005	17,049	101,348	254,900	62,040	261,777
Soap:						
Bar...............pounds..	311,066	9,183	1,428,800	63,498	1,179,867	165,421
Toilet and fancy....dozen..	49,805	9,862	35,248	10,853	52,208	36,377
Sugar:						
Refined...........pounds..	3,926,133	103,977	1,393,466	45,903	1,783,467	115,533
White...............do....	18,096,800	438,938	59,262,400	1,875,298	49,042,667	2,615,302
Typewriters and accessories....	....	2,231	....	2,822	....	3,893
All other articles.............	....	4,088,816	....	7,217,694	....	16,419,126
Total......................	....	17,133,019	....	22,513,271	....	32,514,466

[a] Imports of "leather, colored," in 1918 amounted to 13,867 pounds, valued at $30,451.
[b] Figures are not available for 1918.

SHIPPING FACILITIES FOR TRADE WITH UNITED STATES.

There are no direct steamship connections between the ports of this consular district and the United States. All goods shipped from Canton and other ports of this district must be transshipped at Hongkong, from which point a number of steamship lines maintain regular sailings to various points in the United States. The principal trans-Pacific route is from Hongkong to San Francisco, touching at Shanghai and/or Manila, Japanese ports, and Honolulu. Service on this line both for passengers and freight is maintained by the Pacific Mail Steamship Co., the Toyo Kisen Kaisha, the China Mail Steamship Co., and the Java-Pacific Line of the Java-China-Japan Line. The Robert Dollar Line also maintains a freight service to San Francisco.

The route from Hongkong to Seattle and Tacoma is maintained by the Osaka Shosen Kaisha and the Nippon Yusen Kaisha. The service to Vancouver, B. C., is maintained by the Canadian-Pacific Ocean Services (Ltd.) and the Blue Funnel Line.

There are also various lines operating freight steamers from Hongkong to New York and Boston via the Suez and Panama Canals, including the Blue Funnel Line, the American-Manchurian Line, Frank Waterhouse & Co. (Inc.), the Nippon Yusen Kaisha, etc.

During the first year of the war the service between Hongkong and the United States was greatly reduced, owing to the withdrawal of numbers of ships for use in transporting troops. As a consequence, tonnage was exceedingly scarce and freights rose to an unprecedented height. However, numerous ships have since been added to the trans-Pacific service, and freight rates have consequently fallen.

There are no forwarding and express companies with offices in the Canton consular district in a position to attend to foreign shipments. The various steamship lines mentioned in the above paragraphs practically all have agents in Canton, and through bills of lading are issued to various points within the United States.

Ample facilities for the berthing of vessels exist both at the port of Whampoa, situated 10 miles below Canton, and at Canton harbor itself. At Whampoa vessels drawing up to 23 feet of water during the spring tide, and 20 feet of water during neap tide, may be berthed. At Canton the limit is 17 feet during spring tide and 15 feet during neap tide. The only other ports on the seacoast are Pakhoi and Hoihow, on the island of Hainan. The harbors there are fairly shallow, and seagoing vessels are compelled to anchor at some distance from the shore. The open ports on the West River—Samshui, Wuchow, Nanning, and Lungchow—are available only for light-draft river craft.

The only port dues charged at any of the treaty ports in this consular district are tonnage dues, amounting to 4 mace, normally equal to about 32 cents United States currency, per registered ton if the vessel is over 150 tons. Under 150 tons the rate is 1½ mace per ton, equal to 12 cents United States currency. A vessel that has once paid tonnage dues is exempt from further payment of such dues within a period of four months. These dues are collected by the Chinese Maritime Customs and cover lighting, port dues, etc.

FACILITIES FOR TRAVEL.

The only European hotel in Canton is the Victoria Hotel. This hotel has 60 guest rooms and is under European management. The rates are $7 Hongkong currency per day and upward. In addition, there are two semiforeign Chinese hotels on the Bund—the Western Hotel and the Oriental Hotel. These are patronized for the most part by Chinese, but European food is obtainable. At Macao the two hotels are the New Macao Hotel and the Boa Vista Hotel. Their rates are $6 Hongkong currency per day and upward. There are no European hotels located at the other treaty ports in this district, except two or three along the line of the Yunnan Railway in Yunnan Province. These are for the accommodation of travelers on the railway, since trains do not run at night.

The best season of the year for visiting this district is in the fall, from October to January. The weather during these months is temperate, the thermometer ranging between 40° and 70° F. During the spring the rainfall is apt to be heavy, while during the summer months of June, July, August, and September, the heat is very great.

Excellent steamship accommodations are maintained between the ports of Canton and Hongkong, there being three steamships each way per day. The fare varies from $4 to $6 Hongkong currency, according to the steamer. A steamboat service is maintained between Canton and Macao on alternate days. A line of river steamboats operate between Hongkong and Wuchow on the West River, and between Canton and Wuchow. The round trip from Canton to Wuchow is made in about five days. There are no hotel accommodations at Wuchow, but travelers may remain on the boat. The round-trip fare from Canton to Wuchow is $35 Hongkong currency. A motor-boat service is maintained between Wuchow and points farther up the West River, Nanning and Lungchow.

As regards travel to Yunnan, this is most easily accomplished by taking a steamer from Hongkong to Haiphong in Tongking, and thence by rail to Yunnan over the Yunnan Railway. There are several lines of steamers running between Hongkong and Haiphong, namely, the Compagnie de Navigation Tonquinois, the Osaka Shosen Kaisha, and the China Navigation Co., the fare varying between $40 and $50 Hongkong currency, depending on the line. The trip to Haiphong takes between two and three days. From Haiphong to Yunnanfu, the journey may be made in three days, stopping at night. The first-class fare, Haiphong to Yunnanfu, is $55 Hongkong currency.

TRADE ORGANIZATIONS IN DISTRICT.

CHINESE CHAMBERS OF COMMERCE.

In Canton is located the Canton General Chamber of Commerce for the Province of Kwangtung. The various chambers of commerce in the other cities of the Province, with the exception of that at Swatow, which is independent, are considered as branches of this central organization.

The present system of chambers of commerce was established about 10 years ago, as the result of an imperial edict by which these bodies were given an official character and a seal was issued to each independent chamber from the central Government in Peking. The chief function of the chambers of commerce is to bring the grievances of individual firms to the attention of the officials of the Government in such a manner as to insure a hearing and to settle differences by arbitration when the contending parties are willing to submit their case in this manner. The reason that they do not occupy themselves with the active promotion of commerce in the various cities and towns in which they are located is that each trade guild jealously exercises control over all the merchants in any one line of trade and might resent the attempt of the chamber of commerce to take any action affecting that particular line. The officers of the Canton Chamber of Commerce are a president and vice president, who are elected annually by the members of the "Seventy-Two Canton Trade Guilds," subject to the confirmation of the Department of Commerce, Peking, under whose supervision are all chambers of commerce in the Chinese Republic. The address of the Canton General Chamber of Commerce is An Kung Street, Canton.

In addition to the General Chamber of Commerce, there is also the Canton Export Chamber of Commerce, located at Sun Hing

Street. This is composed solely of Chinese firms dealing in goods for export through the various foreign commission houses located on Shameen.

THE "SEVENTY-TWO GUILDS."

The number of guilds in Canton is, as a matter of fact, larger than 72, but because of the lack of statistics the exact number can not be ascertained. The name of the "Seventy-Two Guilds" was first applied to these organizations in 1906 during the tenure of office of Viceroy Tsen Ch'un Hsuan, when the Kwangtung government endeavored to take over the ownership of the Yueh-Han Railway, whereupon 72 of the various guilds registered themselves as being opposed to the scheme. Since that time the term "Seventy-Two Guilds" has become popular.

Almost every trade in Canton has its own guild, and almost every firm is a member of some guild. The object of each guild is to protect the interests of its members and to ameliorate their grievances. Each guild has its officers (usually the president also acts as treasurer) and certain committees, elected from among the members. They have their headquarters at the office of the organization and engage clerks and other employees to transact its business. These guilds have obtained a very considerable control over their respective trades. On admittance to membership a certain entrance fee fixed by the guild is required. The guild requires its members to adopt uniform terms of payment, including discounts, although many of them secretly violate this provision at the risk of being expelled. The regulations generally forbid a member to transact business with a nonmember. Ordinary meetings are held at various times, but special meetings are convened as circumstances require. Trades requiring skilled labor are divided into two guilds—the employers' guild and the employees' guild. The former requires the proprietor of a store to pay a certain entrance fee and its functions are practically the same as those of other guilds. The employees' guild requires craftsmen to undergo a certain term of apprenticeship, generally three years, before admission to membership. It regulates the wages paid and allows no one to work without first having been admitted to membership; nor does it allow firms to employ persons not members of the guild.

FOREIGN TRADE ORGANIZATIONS.

The European and American firms in Canton have a general Chamber of Commerce. In addition, the British merchants established in Canton have organized a British Chamber of Commerce. This organization conducts a language school for the benefit of young men of British nationality who desire instruction in the Chinese language. This school is also open to non-British employees in British firms. The address is Victoria Hotel Building, Shameen, Canton. There is also a French Chamber of Commerce in the French concession, Shameen.

AMERICAN INTERESTS IN DISTRICT.

HISTORICAL SURVEY.

The port of Canton was for a long time the only port open to foreign trade. Portuguese ships were the first of western nations to arrive, in 1516, the Dutch coming later in 1601 and the English about 1635.

American trade with Canton began shortly after the Revolutionary War. The first American ship to reach China was the *Empress of China*, commanded by John Green. It sailed from the city of New York on Sunday, February 22, 1784, and reached Whampoa, the anchorage for Canton, on the morning of August 28. It left Whampoa on the homeward passage on December 28, 1784, and arrived safely in New York Harbor on May 11, 1785. The supercargo of that vessel was Maj. Samuel Shaw, of Boston, who had served with great distinction as aid-de-camp to Maj. Gen. Knox from 1779 until the close of the Revolutionary War. A few days after the vessel's arrival in New York, he addressed an able and very interesting history of the voyage to Hon. John Jay, Minister of the United States for Foreign Affairs. This letter was laid before Congress, and that body directed the Secretary to inform Maj. Shaw "that Congress feels a peculiar satisfaction in the successful issue of this first effort of the citizens of America to establish a direct trade with China, which does so much honor to its undertakers and conductors."

The second ship was called the *Pallas*, and it was consigned to Robert Morris, one of the signers of the Declaration of Independence and a well-known patriot, capitalist, and merchant of Philadelphia.

These two ships carried to America, with their other cargo, 880,100 pounds of tea. In the years 1786–87 there were five ships engaged in the trade. They exported to America 1,181,860 pounds of tea.

In 1786 Maj. Samuel Shaw returned to Canton in the American ship *Hope*, bearing a commission as the first United States consul to the port of Canton. The outward-bound cargo from America brought to China by these early ships appears to have consisted largely of ginseng, while the return cargoes were composed of teas.

The number of American vessels that arrived in Canton during the year ended June 30, 1833, was 59. These vessels brought quicksilver, lead, iron, South American copper, spelter, tinned plates, Turkey opium, ginseng, rice, broadcloths, camlets, cambrics, velvets, handkerchiefs, linen and cotton drills, cotton yarn, cotton prints, land and sea otter skins, fox skins, sealskins, sandalwood, music boxes, clocks, watches, and sundry other articles, and on their return they were laden with teas, silk, cassia, camphor, rhubarb, vermilion, chinaware, etc.

In 1842 Great Britain concluded a treaty with China which opened to foreign commerce not only Canton but also the ports of Amoy, Foochow, Ningpo, and Shanghai. It also provided for the cession of the island of Hongkong to Great Britain. The United States concluded a commercial treaty with China in 1844. Business moved on peacefully and prosperously at Canton until 1856, when in consequence of the serious demonstrations that were taking place at Canton and elsewhere against foreign trade, English and French gunboats appeared in Canton waters. It was at this time that the foreign factories were sacked and burned. The result was immediate and effective hostilities, and the city was taken without difficulty by the allies.

On the return of peace in 1858, most of the foreigners, including Americans, removed to the Honam side of the river, almost immediately opposite the old factory site. In the meantime the English and French were busy in raising the island of Shameen to its present level.

During this period American trade with Canton flourished exceedingly. Several large American firms were established, notably Russell & Co., and the swift American clipper ships made rapid and profitable voyages between Canton and the ports of Boston and New York. Of the river steamboats plying between Canton, Hongkong, and Macao four were American. However, during the period of the Civil War, owing to the depredations of the privateer *Alabama* and others, American interests were considerably affected—merchants, both American and foreign, preferring to forward their merchandise in foreign-owned vessels rather than pay the increased insurance premium or run the risk of capture by the aforementioned privateers.

During the year 1873, 17 sailing vessels cleared the port of Canton bound for New York, as against 13 for London, 12 for Hamburg, and 4 for Buenos Aires.

Owing to the opening of the northern ports and the rapid rise of Hongkong as a trading mart, the importance of Canton declined during the seventies, eighties, and nineties. American shipping during this period became less and less. The old-established American firms, such as Russell & Co., went out of business, and American commercial interests at Canton were at a low ebb.

During the period following 1900 there has been a considerable increase in the trade of Canton, and likewise American trade has to some extent increased.

MISSIONARY INTERESTS.

The city of Canton was the scene of the first Protestant missionary work in China. The first missionary, Robert Morrison, came to China in 1807. At present American and other Protestant missionaries are established in nearly every one of the larger towns and prefectural cities in the Province of Kwangtung. This Province contains more Protestant mission stations than any other Province in China. The number of stations at which foreign missionaries are located is 70 in Kwangtung, 9 in Kwangsi, 13 in Kweichow, and 10 in Yunnan. American missionary interests are larger, both in number of workers and in capital invested, than the Protestant missions of any other country. As an example, there are 21 foreign Protestant missionary and benevolent societies located in the city of Canton, 14 of which are American. The number of Americans engaged in missionary and other benevolent work among the Chinese is 249 in Kwangtung Province, 35 in Kwangsi, 11 in Yunnan, and 4 in Kweichow—a total of 299, or 77.6 per cent of the adults of American nationality residing in this district.

American missionary societies have established numerous schools, colleges, hospitals, training schools for nurses, etc., in addition to the purely evangelical work that they undertake.

In addition to the places at which missionaries reside, these societies own or rent hundreds of buildings in different towns and cities in the interior that are used as chapels and schools.

The American missionary and other benevolent societies represented in the Canton consular district are:

American Bible Society.
American Baptist Foreign Missionary Society.
American Board of Commissioners for Foreign Missions (Congregational).
American Reformed Presbyterian Mission.
China New Testament Mission.
Christian and Missionary Alliance Mission.
United Brethren Mission.
Board of Foreign Missions of the Presbyterian Church of the United States.
Pentecostal Mission.
South China Boat Mission.
South China Holiness Mission.
Seventh-day Adventist Mission.
Swedish Evangelical Free Church of the United States of America.
Young Men's Christian Association.
Young Women's Christian Association.
Canton Christian College.
Canton Medical Missionary Society.
John G. Kerr Hospital for the Insane.

In addition to the American missions, other Protestant missionary interests are represented by societies from Great Britain, Canada, New Zealand, Germany, and Sweden. The Catholic missionaries are of French, Italian, and Portuguese nationality.

COMMERCIAL AND OTHER NON-MISSIONARY INTERESTS.

The commercial interests of the United States in South China at the present time are confined largely to the port of Canton. The Standard Oil Co. maintains an office, godowns, tanks, and a canning factory there, having charge of the company's business in the Canton delta and along the West River. Branches of the company, with Americans in charge, are also maintained at the open ports of Kongmoon, Pakhoi, Hoihow, Wuchow, and Nanning, and likewise at Yunnanfu, the capital of Yunnan Province. The other American firms in Canton are for the most part branches of firms in the United States, and are engaged only in one particular line of business. There are at the present time no general import and export firms of American nationality maintaining offices with Americans in charge at any ports in this consular district, although one or two of the large American firms in Shanghai and Hongkong have agencies established there in charge of Chinese.

The export trade from Canton to the United States, although large—amounting to approximately $7,000,000 United States currency annually—is almost wholly in the hands of firms of British, French, Japanese, and, prior to the war, German nationality.

The exportation of raw silk, which amounts, on an average, to 46,000 bales annually, more than half of which now goes to the United States, is entirely in the hands of French, British, Japanese, and Swiss exporters, although there is one branch of a New York silk house that has established its headquarters in Canton for the purpose of making purchases direct.

The import trade from the United States, except in the case of kerosene and lubricating oil, sewing machines, and other lines of goods whose manufacturers market their own products in China, is almost wholly in the hands of British, continental, and Chinese firms.

The effect of the European war, since the first few months when trade was generally paralyzed, has been to stimulate the market for American products in this district. This refers principally to lines of goods that had formerly been supplied from the Continent of Europe. A shortage of the supply there compelled the Chinese to look to other markets to fill their wants. This is particularly true in metals of all kinds, such as iron and steel plates and bars, as well as in canned goods, chemicals, drugs, glass, etc.

There is no doubt that there is opportunity in Canton for a general import and export house with facilities and equipment to handle a fairly large turnover. If such a house, for instance, could establish trade connections in the United States for the exportation of raw silk as a staple product and also handle other commodities, both export and import, as well as fire and marine insurance, there is no doubt that, if it were properly managed, its success could reasonably be assured.

HANKOW CONSULAR DISTRICT.

By Consul General Edwin S. Cunningham.[1]

LOCATION AND AREA.

The city of Hankow is situated on the Yangtze River at its confluence with the Han River, and is in latitude 30½° north (about the same as New Orleans) and longitude 114½° east. Hankow, Wuchang, and Hanyang form the "Wuhan cities." On account of the iron industries located there they are termed by some the "Pittsburgh of China"; because of their great economic, manufacturing, and commercial importance in the heart of China, 600 miles from the sea, they are more frequently called the "Chicago of China." They might be called, with considerable reason, the "Manchester," on account of their cotton interests.

Hankow is the limit of navigation for ocean-going steamers on the Yangtze River. During about eight months in the year large vessels arrive with foreign cargo and depart with huge shipments of raw products to Europe and America, while in all seasons splendid river steamers ply between Hankow and Shanghai. Many people may have the opinion that a trip up the Yangtze would be one of discomfort and extremely dangerous, but those who have had the privilege of making this interesting voyage through this most fertile valley have found such an opinion very erroneous, for it is doubtful whether in any other part of the world a traveler can find more comfort or a better cuisine than on these river steamers, except where the charges are many times greater.

Hankow is midway between Shanghai and Szechwan Province, at the confluence of two rivers having numerous tributaries acting as feeders, and it is therefore wonderfully well located for handling the rich resources of the Yangtze Valley, most of the valley being within the limits of this consular district. The Yangtze River is recognized by all who are familiar with China as being the best part of the country, since "this valley is destined to become the center of industrial activities in the East, when the time comes for the East to awake to new industrial activities."

The Hankow consular district comprises the following Provinces:

Provinces.	Area.	Population.
	Square miles.	
Hupeh	71,428	24,900,000
Kiangsi	69,498	14,500,000
Shensi	75,290	8,800,000
Kansu	125,483	5,000,000
Honan, south of Yellow River	60,000	24,000,000
Kokonor region	[2]	[2]
Chinese Turkestan (Sinkiang)	550,579	2,491,000
Mongolia, not in Tientsin district	[3]	[3]

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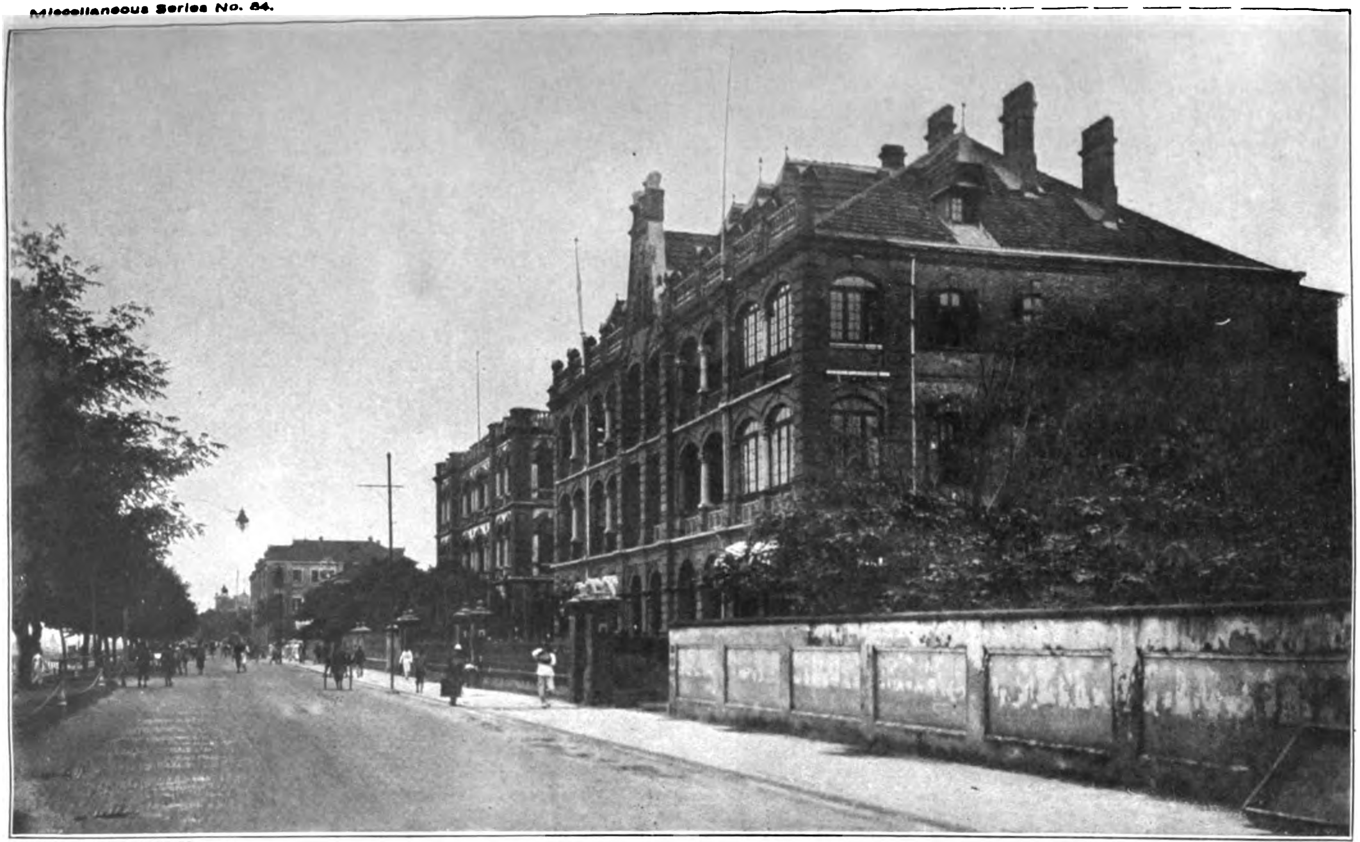
[1] The sections on "Physical Features" and "Climate" were prepared in the main by Consul Horace Remillard, while credit is given to Vice Consul William S. Howe for assistance in the preparation of the section on "Education."

[2] Not known, even approximately.

[3] Not well defined.



Photograph by E. M. Newman.

FIG. 6.—THE BUND AT HANKOW.

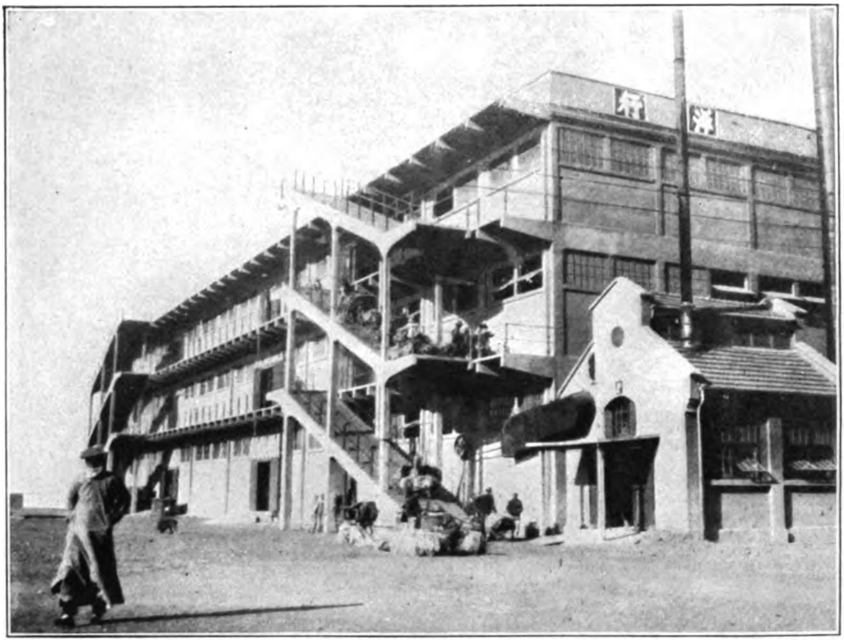


FIG. 7.—HIDE AND FIBER PACKING PLANT, HANKOW.

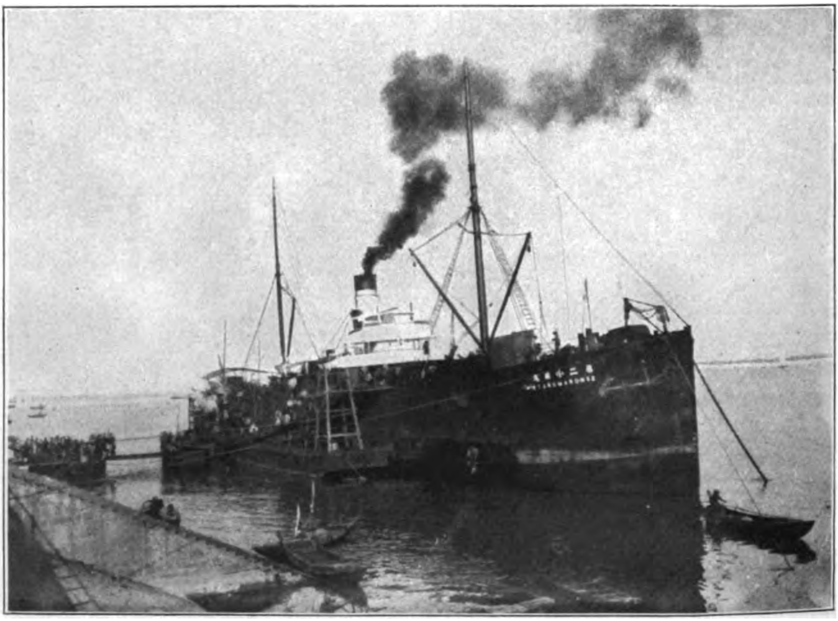


FIG. 8.—JAPANESE COASTING STEAMER, HANKOW.

In area this is the largest consular district in China, comprising more than 25 per cent of the total territory of the Republic and its dependencies. If Mongolia is excluded (because the limits are not well defined) and also the Kokonor region (because it is practically unknown and is of small commercial importance), there is still left 952,278 square miles, having as great undeveloped wealth as can be found in any district, as well as some of the most fertile lands and richest mines known. If one considers only the Provinces, whose areas are more or less definitely known and which require the attention of the Hankow consular office continuously, their area almost equals that of the States of Louisiana, Mississippi, Arkansas, Alabama, Georgia, Florida, Tennessee, and Kentucky, and if the remainder of the district of Sinkiang, Kokonor, and that part of Mongolia within this district are included, the areas of the States of Texas, South Carolina, Ohio, Indiana, Illinois, West Virginia, Virginia, North Carolina, and Missouri will easily be added to the first-named group. From the southern point of Kiangsi to the northwest of Kansu the distance exceeds 1,600 miles (4,800 li), extending from 25° to 41° north latitude, corresponding to the difference in latitude between northern Cuba and New York. Since the transportation is extremely primitive (being largely by means of chairs), it would require considerably longer than one month to make the trip. One can quickly pass from Charleston, S. C., to New Orleans and thence to El Paso, but to cover the same distance in China is a herculean undertaking.

POPULATION.

An accurate enumeration of the people by census has never been undertaken in China, but a number of estimates, based more or less upon reasonable assumptions, have been made. The one usually accepted by westerners as the most reliable is that known as the Minchengpu, 1910, though it is more than 30 per cent under that made by the Customs in the same year. The census taken by the Minchengpu, 1910—the results of which are embodied in a report submitted to the Department of State in Washington by Mr. R. P. Tenney and published in Daily Consular and Trade Reports for July 13, 1911—is used in the present report. However, any statement regarding population must be regarded, to some extent, as conjecture. In China numbers convey no accurate conception to the mind of an Occidental, because mere population gives no adequate idea of the potentialities of the inhabitants in production, consumption, or defense. By western standards a population of a million farmers in a fertile section should justify the effort to sell many agricultural implements and machines, but in China their demands for these articles are too small to mention. An equal urban population in the Occident would furnish endless openings for all kinds of vocations, as well as a market for all sorts of luxuries and necessities, but in China the promoter of an innovation would rarely receive a satisfactory reward. The people are poor, with a poverty that has come down through innumerable generations; they have had few wants and those have usually been supplied from the country; they know nothing of luxuries and, indeed, very little of necessaries. One must be impressed with the great natural wealth of the country; its soil is as fertile as any; its undeveloped mineral resources are supposed to equal the richest; but among these wonderful riches lives one of the poorest peoples of the earth.

Therefore American business men should not be misled when informed that the population of the Hankow consular district totals 79,691,000—23 per cent of that for all China exclusive of Mongolia and Kokonor, or 4,000,000 more than the entire poulation of continental United States in 1900. If Mongolia and Kokonor are added the number will probably be increased by 2,000,000. The density of population is greatest in Honan along the Yellow River, where it is 376 persons per square mile, and least in Sinkiang, where it is 4½ per square mile. Hupeh, with the large Wuhan cities and rich Yangtze bottoms, has 348, Kiangsi 208, Shensi 116, and Kansu 40 per square mile. Of all States of the American Union only Rhode Island, with 508.5, and Massachusetts, with 418.8 per square mile, have a population equal in density to that of the Provinces of Honan and Hupeh. Sparsely settled Kansu has approximately the same density of population as Iowa, Vermont, or Alabama, while only 23 of our 49 States have a population whose density exceeds 40 persons per square mile.

The single Province of Hupeh has an area equal to New York, New Jersey, Connecticut, Massachusetts, and Rhode Island, and though these are the most thickly populated per square mile of any of the States, their combined population is only two-thirds that of Hupeh. That part of the agricultural Province of Honan which is south of the Yellow River has an area equal to that of New York, Massachusetts, and Rhode Island, but it has twice as many people.

Canton, with its 900,000 people, is the only Chinese treaty port approaching Hankow in population; when one includes Hanyang, across the Han River, and Wuchang, across the Yangtze River, the population of the Wuhan cities (which are usually treated as one) is 1,321,284. The following are the treaty ports in this consular district, with date of opening and population: Hankow, opened in 1862; Ichang, opened in 1877, population, 55,000; Kiukiang, opened in 1862, population, 36,000; Shasi, opened in 1896, population, 95,000.

Other cities of great importance within the district are: In Honan—Kaifengfu, Honanfu, Hsuchow, Yencheng, Sinyang, Kioshan, Nanyang, Chowkiakow, and Chengchow. In Hupeh—Kingchow, Lachokow, Siangyang, Fancheng, Anlu, Tayeh, and Hsinti. In Kansu—Tsinchow, Lanchowfu, and Sining. In Kiangsi—Kingtehcheng, Nanchang, Pinghsiang, and Kanchow. In Shensi—Sianfu, Yenchang, Hanchung, and Tungkwan.

There are a few ports of call for passengers and cargo on the Yangtze, such as Hukow, Wusueh, Lukikow, Hwangshihkang, and Hwangchow. These places have been opened as ports of call by the Chefoo Agreement of September 13, 1876, and the Yangtze Regulations of 1898.

PHYSICAL FEATURES.

Because of the wide extent of this consular district and the varied physical characteristics, so widely divergent in each Province, it does not seem to offer a good basis of comparison with sections in the United States. The remote sections of Sinkiang, Kokonor, and Western Mongolia will not be included in the following account.

HONAN.

Honan is shaped like an irregular triangle. It is bounded on the north by Shansi and Chihli, on the east by Shantung, Kiangsu, and Anhwei, on the south by Anhwei and Hupeh, and on the west by Hupeh, Shensi, and Shansi. "This area is divided into three basins, that of the Yellow River in the north, of the Huai River on the south, and of the Han River on the southeast; the last two are separated by a marked range of mountains, the Fuh-nui-shan, which is regarded as the eastern terminus of the Kwanhui Mountains. This range maintains an elevation of 4,000 to 6,000 feet." The Peh and Tan Rivers drain its southern slopes into the Han, and the eastern sides are abundantly watered by numerous branches of the Huai River, as they flow into Hungtseh Lake. The northern portion of Honan along the Yellow River is level, fertile, and populous, forming one of the richest portions of the Province. (Williams's "The Middle Kingdom," p. 98.)

Kaifeng, the capital, is situated about 1 league from the southern bank of the Yellow River, whose bed is here elevated above the adjacent country. Other important centers are Honanfu, in the north-central part; Hwaikingfu, on the Yellow River; Nanyangfu, in the southwestern part; Changte, Weihwei, Chengchow, and Hsuchow, on the Peking-Hankow Railway; and Juning and Kweiteh in the western part of Honan.

HUPEH.

Hupeh is bounded on the north by Honan, on the east by Anhwei and Kiangsi, on the south by Hunan, and on the west by Szechwan and Shensi.

The Great River (Yangtze) flows through the south, where it connects with all the lakes on both its shores, and nearly doubles its volume of water. The Han Kiang or Han Shui rises in the southwest of Shensi, between the Fuh-nui-shan and Tapa Ling, and drains the south of that Province and nearly the whole of Hupeh, joining the Yangtze at Wuchang. It is very tortuous in its course, flowing about 1,300 miles in all, and is navigable only a portion of the year, during the freshets, as far as Siangyang, about 300 miles. Boats of small size come down, however, at all times from Sinpuwan, near its source in Shensi. The mouth is over 200 feet broad, but the bed of the river, as one ascends, soon widens to 400 and 500 feet, and at Shayang, 168 miles from Hankow, it is ½ mile wide. The area of the whole basin is about the same as the Province.

The extraordinary effects of a large body of melted snow poured into a number of streams converging on the slopes of a range of hills, and then centering in a narrow valley, bringing their annual deposit of alluvium and silt, are seen along the River Han. The rise of this stream is often 50 feet where it is narrowest, and the shores are high; at Ichang the channel varies from 300 to 1,500 feet at different seasons, but the river bed from 2,000 to 9,000 feet, the water rising 18 feet at the fresh. In these wide places, the river presents the aspect of a broad, winding belt of sand dunes, in which the stream wanders in one or many channels. Navigation, therefore, is difficult and dangerous, since moving sands shift the deep water from place to place, and boats are delayed or run aground. In high water the banks are covered, but the current is then almost as serious an obstacle as the shallows are in winter.

The southeast part of Hupeh is occupied by an extensive depression filled with a succession of lakes. The length and breadth of this plain are not far from 200 miles, and it is considered the most fertile part of China, not being subject to overflows like the shores of the Yellow River, while the descent of the land allows its abundance of water to be steadily distributed. Every spot is cultivated and the surplus of productions is easily transported whenever there is demand. The portions nearer the Yangtze are too low for constant cultivation.

The Ax Lake, Millet Lake, Red Horse Lake, and Mienyang Lake are the largest in the Province. The remaining parts of both the lake Provinces are hilly and mountainous (Hupeh and Hunan); the high range of the Tapeh Shan (Great White Mountains), commencing far into Shensi, extends west of Hupeh and separates the basins of the Great River from its tributary, the Han Kiang, some of its peaks rising to the snow line. (Williams's "The Middle Kingdom," pp. 142-143.)

The most important centers are the Wuhan cities (Hankow, Hanyang, and Wuchang), at the confluence of the Yangtze and Han Rivers, which occupy the same relative position to China as Chicago does to the United States, namely, that of a large industrial and shipping city in the central part of the country. Other important ports are Shasi and Ichang. The former has a canal, which discharges at Shayang on the Han River 40 miles away. Ichang was the terminus for light-draft vessels and all craft not navigated by the use of trackers prior to the introduction of the gorge steamers in 1900. Above Ichang are the Wushan, Milan, and Lukan gorges, famous for their picturesque scenery. Other cities of importance are Siangyang, Laohokow, and Anlu in the Han Valley, Tayeh in the southeastern part (famous for its iron mines), and Wusueh, across from Kiukiang in Kiangsi Province.

KANSU.

Kansu is bounded on the north and northeast by inner Mongolia and the Ordos country, on the east by Shensi, on the south by Szechwan, on the southwest by Kokonor and the desert, and on the northwest by Sinkiang. The Great Wall forms a part of its northern boundary but in many places is within the limits of the Province.

The Province is virtually divided into two sections by the mountains running nearly north and south, separating the Wei and Yellow River basins. The main pass connecting these two systems is near Titao, south of Lanchow. The Wei basin is fertile in character like the plain of central Shensi, but the rivers are of little use for navigation.

In the northern part of the Province there is a narrow strip of mountainous country reaching northwesterly from the Ala Shan to the confines of the Great Wall on the west.

The principal cities are Lanchow, the capital, on the south side of the Yellow River where it turns northeast, Pingliang on the King River, Kingkiang on the Wei, Minhsien in the extreme northwestern part on the Yellow River, and Sining on the Sinning River.

KIANGSI.

The Province of Kiangsi lies south of Anhwei and Hupeh, between Chekiang and Fukien on the east and Hunan on the west, reaching from the Yangtze to Kwangtung Province on the south.

Its form is oblong, and its entire area is made up of the beautiful basin of the Kan Kiang, including all the affluents and their minor valleys. The hilly portions form part of the remarkable series of mountainous ridges, which cover all southeastern and southern China, extending from Ningpo southwesterly to Amoy. It is made up of ranges of short and moderate hills, cut up by a complicated net of watercourses, many of which present a succession of narrow defiles and gentle valleys with bottom lands from 5 to 12 miles wide. That part of this region in Kiangsi has an irregular watershed on the east, separating it from the Min basin, and a more definite divide on the west from Hunan and its higher mountains. The surface of the land is rugged. It is well watered and drained by the river Kan and its tributaries, most of which rise within the Province; the main branch empties into Poyang Lake by numerous mouths, whose silt has gradually made the country around it swampy. For many miles on its eastern and southern banks extends an almost uninhabitable marsh, presenting a drainy appearance. (Williams's "The Middle Kingdom," vol. 1, pp. 111-112.)

The important centers are Kiukiang, on the Yangtze River; Nanchang, the provincial capital, on the Kan River; Nankangfu, at the mouth of the Poyang Lake; Jaochow and Kingtehchen in the western part, famous for their porcelain industry; Pinghsiang, near the Hunan border, where there are extensive collieries; Kianfu, in the south-central part, on the Kan; and Kanchow, in the extensive southern part, likewise on the Kan.

SHENSI.

The Province of Shensi is bounded on the north by the Ordos Country (Inner Mongolia), from which it is divided by the Great Wall, on the east by Shansi and Honan, on the southeast by Hupeh, on the south by Hupeh and Szechwan, and on the west by Kansu.

This Province has three separate geographical divisions—the fertile loess table-lands in the north; the plain in the center, drained by the Wei River and its tributaries; and the mountains in the south.

The northern section has a good soil, but on account of the uncertainty of the rains agriculture is rendered precarious. The Lukuan Shan and Pai Yu Shan constitute the mountain ranges and run from east to west. This section is watered by many small streams flowing into the Yellow River, which forms the eastern boundary of Shensi with Shansi Province, these streams flowing from northwest and southeast. The beds of the streams are cut deep into the prevailing loess formations, and consequently roads across are few. Yuleufu, in the extreme north, and Yenanfu in the north-central part, are the principal cities.

Central Shensi is the most populous section of the Province and lies in the fertile Wei River Valley. This river flows from the Yellow River at the point where Honan, Shensi, and Shansi come together, and its course is almost due west. There are no important branches of the Wei on the south side on account of the mountain country, which makes adequate outlets very scarce in this direction. On the north side, however, many small rivers flow northwest away from the Wei, its most important tributary being the King Ho. Sianfu, the capital city, is situated a few miles south of the Wei River. Other important centers in this region are Tungchowfu, on the Lo River, which empties into the Hwang Ho, and Fenghsiangfu, on the Wei River, near the Kansu border. The central Shensi plain is the most fertile agricultural section of Shensi.

The southern section has numerous mountain ranges, and geographically the division is marked out from the central portion by the Tsing Ling Shan, which acts as a watershed for the Wei and Han basins. The Han River flows through Shensi into Hupeh. Hanchungfu and Hinganfu are the principal cities situated on this river.

CLIMATE.

Only the most general statement can be made regarding the climate of this consular district, because of the varied physical characteristics in different sections, affecting climatic conditions over small areas. There is represented every variety of temperature, from the extreme winter cold of the confines of Kansu Province to the tropical heat of southern Kiangsi.

KANSU.

During the long winter months, Kansu is covered with snow and ice; all the rivers are frozen over, and the inhabitants, though clad in skins, protect themselves with difficulty from the cold. A bleak wind also blows from the table-land of Mongolia. In summer, the thermometer rises at times to 104° F. At this period, vegetation is luxuriant and the crops grow with great rapidity. Exception should be made for the southern part, however, which is very wet, owing to the rain-laden clouds that are wafted up from the south. In some valleys the climate is so mild that the fruits of South China come to maturity, such as the persimmon. The climate in the greater portion of Kansu is not unlike that of Missouri and Arkansas in many respects.

SHENSI.

The climate of Shensi is widely different to the north and to the south of the Ts'in Ling. In the north it resembles that of the region of the Hwang Ho, with its dry cold, its dust, and its violent storms. It may be compared to Nebraska in the United States for cold and dryness. In the south the climate is rather like that of Szechwan, without the northern or southern winds, these being prevented from blowing by the two mountain ranges. From February to October the sky is overcast and the atmosphere damp, while excessive heat prevails in summer. The cold sets in only at the end of November, and fall is the finest season. The climate of the southern part of Shensi is not unlike that of Missouri and Arkansas as regards temperature, but the thermometer and barometer are much more subject to sudden changes. The thermometer reaches 0° F. in winter and about 105° F. in summer.

HONAN.

The Province of Honan is a portion of the same geographical division as South Shensi, is influenced by the same physical features, and hence its climate in the northern part is like that of southern Shensi, described above. Southern Honan is more in relation with Hupeh Province and forms a part of the Central China Plain; hence the climate is like that of Hupeh.

HUPEH.

The climate of Hupeh is very much the same as that of Shanghai, but is less moist. The sea breeze to cool the summer atmosphere is, however, absent, and in the hot season the nights are as warm as the days. Another feature of the summer heat is the fact that it is usually sustained over an extended period, as in 1913, when the average for 21 days and nights was 101° F. The heat very often reaches 104° or 105° F. and is then endured with difficulty, on account of the moisture in the air. In winter the thermometer seldom descends lower than 20° or 25° F. There is usually a short rainy season in winter and early spring, and a heavier rainfall during the summer. Autumn is often free from rains to early December. From the Decennial Report of the Maritime Customs (1902–1911), it may be noted that the annual total rainfall varies greatly at Hankow—from 27.27 inches in 1902 to 68.14 inches in 1909. The average for the 10 years appears to be 43.38 inches per annum. This is probably a good indication for other points along the Yangtze within the Province, as the storms usually follow the river.

The Yangtze River is the trade avenue that places Hankow in the position to make it the premier port of export for China. January and February are the lowest months for the river, while July and August are the highest. In the low season for a 10-year period it ranged from 9 inches below zero to 12 feet above, while the high-water mark ranged from 39 feet to 48 feet above.

The climate of Hupeh may be compared in summer to that of Louisiana and in winter to that of western North Carolina or eastern Tennessee.

KIANGSI.

The climate of Kiangsi is generally very hot in summer. During the winter the lakes between Kiukiang and the mountain background are occasionally frozen. In the neighborhood of Kiukiang and the Poyang Lake the climate resembles that of Hankow and Hupeh, with the same approximate extremes of temperature but with slightly more rainfall. In the south it is tropical like Canton. The summers in Kiangsi may be compared to those of Louisiana, the winters to those of the South Atlantic States. The Yangtze River is an important factor in the trade of this Province as well as that of Hupeh. Its highest point is attained in summer, when it ranges from 35 to 45 feet; its lowest is in winter, when it ranges from 9 inches below zero to 7 feet 6 inches above.

PROVINCIAL ADMINISTRATION.

The principal provincial officials are the military and civil governors (Chiang Chun and Hsun An Shih). The former is under the direct authority of the President and has control of all the military forces of the Province. Consequently, he is the highest provincial power, especially in times of emergency, when he is required to take action. His authority has been very extensive since 1911 on account of frequent situations of unrest.

The civil governor is also appointed from Peking, and he is the chief civil authority. His powers vary in the different Provinces, as certain ones of this class of officials are granted by presidential order special functions not enjoyed by other civil governors. The civil governors have become of less importance since 1915, as this position is being, in some instances, combined with the military and in all cases restricted, so that the military rule can be more easily established. Generally speaking, there are certain divisions (K'O) which are under his control through his administrative department (Cheng Wu T'ing). Other departments, such as foreign affairs, justice, and finance, report not only to him but to the central Government as well, this situation creating a dual responsibility. The divergence in practice is well illustrated in foreign affairs: Hupeh has a special envoy for foreign affairs (Wai Chiao Pu Te Pai Chiao She Yuan), who resides in the foreign concessions, Hankow, and who reports to Peking rather than to the civil governor; Kaifengfu (Honan) has a commissioner of foreign affairs for the whole Province, reporting to either the Board of Foreign Affairs at Peking or the civil governor; Kiukiang (Kiangsi) has a superintendent of customs in charge of foreign affairs, reporting to the civil governor at Nanchang; finally, foreign affairs in Kansu and Shensi are directly under the governor and are administered from his office. It should be noted that in Kansu the civil and military authority is vested in one and the same man, and this is becoming more general, as in Hupeh since August, 1916.

The civil governor has periodical reports to make to Peking, may request assistance from the military authorities, and has wide powers of supervision. His authority is limited largely by the fact that the majority of the subordinates in the provincial administration are appointed by the central Government, although he may recommend candidates for minor offices. The finances are usually under the control of the Department of Finance, reports being made to it and appointments and dismissals by it. The judge of the higher Shen Pan T'ing (Kao Teng Shen Pan T'ing Chang) is responsible to the Peking authorities, the civil governor acting in a supervisory capacity.

In order to carry out the provincial government each Province has a certain number of "tao," the chief official of which is the "taoyin." The latter has a machinery of administration similar to that of the civil governor for the whole of the Province. The civil governor exercises supervisory powers over the "taoyin," and the authority of the latter depends largely on the functions delegated to him by the former.

The third and last of the important administrative provincial divisions is the "hsien", which is under the "hsien magistrate." This official is usually supervised by the "taoyin" and the civil governor, as well as by the Shen Pan T'ing (on account of his judicial functions). He is also the tax-collecting official of his district and has the right to call upon the police to aid him in carrying out his official duties.

There is probably no class of officials in the United States corresponding to the provincial officials of the Chinese Province. All that can be said is that the "hsien magistrate's" functions, although more extensive, are not unlike those of the American justice of the peace.

The chambers of commerce are not official organizations, but their influence is so great as to give them a standing equal to that of any official. Their advice is sought in the enforcement of taxes, the payment of debts, the liquidation of insolvent estates, and often to determine the priority of claims. The chambers are organizations of great power when once their machines are put in motion.

EDUCATION.

The general educational progress of the Hankow consular district, as well as of China generally, during the last decade may be said to be of spirit rather than of substance. Since the abolishment under the Empress Dowager of the old system of literary examinations and the provision for a system of education along modern lines, the Chinese authorities have had to contend with lack of funds and constant political disturbances, making it impossible to realize in practice the regulations for reform sent out from Peking. The decline in the old-style learning, combined with the inability to bring about the general establishment of the new, has caused an "interregnum" in public educational progress. Since the revolution, however, there have been indications of gradual advance. It is not possible to give an estimate of the percentage of literacy, since the most unenlightened coolie generally recognizes a few characters, while the persons able to read a newspaper with facility are confined to the scholar class and the better-educated merchants. In general, it may be said that the number of Chinese sufficiently well acquainted with their written language to make practical use of it form an almost insignificant fraction of the vast population of the country.

The following review of the different branches of educational endeavor can be only a rough approximation to the truth. The figures for native institutions, though compiled from official sources, can be accepted only as a working basis, since the rather lax system of records hitherto employed in provincial offices makes impossible anything closely approaching accuracy. The figures for missionary activity are reliable as far as they go, but it has not been possible to obtain statistics from all districts where such institutions exist. What has been done is to enumerate the largest and most influential of the organizations.

NATIVE EDUCATIONAL ESTABLISHMENTS.

There are no native institutions to which the term "university" or "college" could properly be applied.

The following technical schools are located in Honan and Kiangsi, the only Provinces whose authorities are able to furnish information along this line: Honan—Honan Agricultural College, College of Political Science. Kiangsi—College of Political Science, College of Agriculture, First Grade Industrial School, Second Grade Industrial School, Commerical School.

There are no other special schools except normal schools, of which few can be considered of practical utility. For instance, in the 46 enumerated as located in Kiangsi Province, only six are entirely under Government control, and these are not supplied with proper facilities in respect either to teaching staff or material equipment. One happy exception is the Government Higher Normal School at Wuchang, which has a foreign principal and an attendance of 200.

There are "middle schools" as follows: Kiangsi—Government, 9, with 1,745 pupils; private, 13, with 1,400 pupils; total, 22, with 3,145 pupils. Kansu—Government, 6, with 423 pupils. Shensi—Government, 9; private, 1; total, 10, with 1,841 pupils. Honan—Government, 39, with 4,520 pupils. Hupeh—Government, 21, with 2,845 pupils; private, 8, with 596 pupils; total, 29, with 3,441 pupils. Grand total—106 schools, with 13,370 pupils.

There are elementary schools as follows: Kiangsi—Government, 94, with 7,697 pupils; private, 3,800, with 129,736 pupils; total, 3,894, with 137,433 pupils. Kansu—Government, 811, with 18,538 pupils. Shensi—Government, 2,065; private, 1,020; total, 3,085, with 81,732 pupils. Honan—Government, 4,601, with 127,608 pupils; private, 1,679, with 32,417 pupils; total, 6,280, with 160,025 pupils. Hupeh—Government, 1,841, with 57,178 pupils; private, 2,408, with 73,788 pupils; total, 4,249, with 130,966 pupils. Grand total—18,319 schools, with 528,704 pupils.

These totals, for a district whose population amounts to about 80,000,000, show how extremely backward education is. The average yearly expenditure since the revolution for these five Provinces combined has varied at amounts somewhat less than $5,000,000 United States currency.

Medical schools may be presumed to be almost nonexistent at present, since in the two largest Provinces of the district—Honan and Hupeh (the only ones concerning which any information is available)—the Chinese authorities, who are naturally optimistic as to the prospects of the territory under their control, speak of only one, a private institution with 72 pupils in Hupeh.

Hospitals are little more in evidence; in only one Province, Honan, have the authorities answered the consulate's request for information. This unresponsiveness is probably due to lack of reliable statistics. The hospitals mentioned by the Honan authorities are all in Kaifengfu and are entitled as follows: Honan Government Hospital, Rear Street of Siang Kio Ssu; Garrison Hospital, Mo Chang Kai; Kwang Chi Hospital, South Gate Avenue. It may be mentioned that one of the best-informed of the foreign doctors in the Province stated that so far as he had been able to find out there were no native hospitals.

The present use of foreign school equipment is small. The textbooks are prescribed by the Ministry of Education and supplied chiefly by the large printing houses at Shanghai, such as the Commerical Press and Chung Hua Shu Chu. The ink and brushes are of Chinese manufacture. The small blocks of paper, the notebooks, and the pencils employed for taking down lectures, calculating, etc., are also of native supply.

The possibilities for foreign equipment would seem to be limited to the more elaborate and expensive types such as laboratory outfits. At present these are not employed and the future prospects must depend upon the advance, the general extent, and the standard of education, which, in turn, are dependent upon a general political, economic, and social improvement.

What has just been said applies also to foreign hospital equipment.

FOREIGN EDUCATIONAL ESTABLISHMENTS.

The principal schools and colleges under foreign auspices and control in the Hankow consular district are as follows:

HUPEH.

Boone University, Wuchang.
Griffith John College, Hankow.
Wesley College, Wuchang.
David Hill Memorial Girls' Boarding School, Hanyang.
Huntington School, Ichang.
Church of Scotland Boys' Boarding School, Ichang.
China Inland Mission Middle School, Laohokow.
Central China Union Lutheran Theological Seminary, Shekow.
Wesleyan Boys' Boarding School, Tayeh.
Wesleyan Boys' Boarding School, Teian.
London Mission Boys' Boarding School, Tsaoshih.
London Mission Boys' Boarding School, Wuchang.
Union Normal School, Wuchang.
St. Hilda's School for Girls, Wuchang.
Wesleyan Girls' Boarding School, Wuchang.
Y. M. C. A. Middle School, Hankow.
Y. M. C. A. Evening School, Wuchang.

HONAN.

Norman McPhee Boarding School for Boys, Changte.
Canadian Presbyterian Mission Primary School, Hwaikingtze.
Hwaiking Missionary School for Girls.
Baptist College, Kaifeng.
St. Andrew School and College, Kaifeng.
M. Maxwell High and Normal School, Weihweifu.
China Inland Mission School, Yencheng.

KANSU.

Anglo-Chinese School, Lanchowfu.
China Inland Mission Boys' Primary School, Liangchowfu.
Christian Elementary School, Tsinchow.

KIANGSI.

William Nast College, Kiukiang.
China Inland Mission Girls' Boarding School, Hokow.
China Inland Mission Boys' Boarding School, Kanchowfu.
Rulison High School, Kiukiang.
St. John's Middle School, Kiukiang.
Baldwin School for Girls, Nanchang.

SHENSI.

Baptist Theological College, Sianfu.
English Baptist Girls' High School, Sianfu.

The primary schools under missionary control furnish no more promising field for foreign equipment than do those under native jurisdiction. Their programs conform fairly closely to the Government course, and their textbooks naturally are obtained from much the same sources. The petty stationery is usually furnished by the pupils themselves.

The higher institutions, such as Boone, Griffith John, and William Nast, are fairly well equipped. Scientific outfits are employed, and, as the instruction in many subjects is in English, there is a chance for progressive, soundly constructed textbooks to win their way on their merits. But the field is, of course, a very limited one.

The chief foreign medical schools of the district are the Union Medical College, at Hankow; the Male Nurses' Training School at Hankow; and the medical school at Boone University.

The hospitals are as follows:

HONAN.

China Inland Mission, Kaifeng (British).
Canadian Mission, Weihwei (British).
Canadian Church Mission, Kweiteh.
Catholic Hospital, Chumatien (Italian).
Augustana Synod Mission, Honanfu (Swedish-American).
American Lutheran Mission, Kioshan (Norwegian-American).
American Free Methodist Mission, Kihsien (clinic without hospital connection).
Augustana Synod Mission, Juchow (clinic without hospital connection).
Contemplated:
    Lutheran Synod Mission, Kwangchow (Swedish-American).
    Augustana Synod Mission, Juchow (Swedish-American).

KIANGSI.

Kuling General Hospital, Kuling.
St. Vincent's Hospital, Kiukiang (Catholic).
Danforth Memorial Hospital, Kiukiang (Methodist Episcopal, chiefly for women and children).
Nanchang Hospital, Nanchang (Methodist Episcopal Mission).

HUPEH.

Church General Hospital, Wuchang (American Church Mission).
International Hospital, Hankow.
Catholic Hospital, Hankow.
Japanese Hospital, Hankow.
London Mission Hospital, Hankow.
London Mission Hospital, Wuchang.
Wesleyan Mission Hospital, Hankow.

The prospects for the introduction of American hospital equipment in hospitals under foreign control would seem to be good. Those in control of even the best of the institutions state that the equipment leaves much to be desired, and the securing of improvements and new appliances is dependent only upon the obtaining of the necessary funds. The following clear presentation of this aspect of the question is quoted from one of the best qualified of the present medical missionaries in Honan. He is speaking of that Province alone, but conditions are sufficiently similar throughout this consular district to make his remarks applicable generally, with the possible exception of institutions located immediately in the Wuhan cities:

> As for equipment, we are all more or less crippled for want of men and funds. So far as I know, not one of the hospitals has a properly equipped pathological laboratory, and none have X-ray apparatus. The surgical supplies and instruments are all limited to the barest necessities. Where appliances can be made locally or improvised, this is done. Many of the instruments used are imported from Japan. These are, as a rule, too flimsy, but find a ready market because they are cheap and can be procured on short notice.
>
> The present institutions are all in the hands of progressive men and, unless stifled by shortsightedness and by lack of funds, are bound to grow.
>
> American hospital supplies will find a market only in so far as they can compete with the rapidly improving Japanese. Drugs, on the other hand, if properly marketed, will find a good market among American institutions, for we prefer the American standards and earnestly desire government protection in the matter of purity and quality. The deterring factors are loss of time in transit, cost of transportation, and import duties.

AGRICULTURE.

As the available data are very incomplete, much of the information contained in this section on agriculture was collected from the American missionaries and others resident in the interior of China. A list of questions was sent to 21 persons living in every section of this consular district, and the greater part of this chapter was compiled from information received from this source. It is not in accord in every particular with what has been published in other volumes, but it is thought that, by reason of its source, the information is more reliable than if it had been taken from volumes such as the China Year Book.

The Chinese are primarily agriculturists, and most of this territory is under cultivation (unless occupied by graves) except the mountainous districts. The soil is fertile and has great agricultural potentialities, though the mode of cultivation is extremely primitive. The wooden plow, the ancient hoe, the wooden-wheel cart, and other implements are the same as have been in use since very ancient times. The mountainous districts in western Hupeh are difficult of cultivation, and the farmers are forced to utilize every level tract, be it ever so small, in the valleys, and to terrace the mountain side to produce the crops that, at best, are inadequate to meet the demands of the population. A similar necessity exists for the sparse population on the heights of Kansu Province. On the whole, however, the Provinces composing the Hankow consular district are rich in agriculture but susceptible of unlimited expansion by the introduction of improved seeds, modern methods of cultivation and harvesting, and improved live stock.

ARTICLES PRODUCED.

The following statement will be interesting as showing some of the articles produced:

Barley.—Produced in Honan (planted in September, harvested in June), Hupeh (planted in October, harvested in May), Kansu, and Shensi; yield per acre, 5 to 25 bushels.

Beans.—Produced in Hupeh (planted in May, harvested in September), Honan (planted in June, harvested in October), and Kansu; yield per acre, 125 to 200 pounds.

Broom corn.—Produced in Hupeh and Honan (planted in March, harvested in July); yield per acre, 150 to 225 pounds.

Corn.—Produced in Hupeh (planted in March, harvested in July), Kansu (planted in April, harvested in September), and Shensi (planted in June, harvested in August); yield per acre, 15 to 35 bushels.

Cotton.—Produced in Hupeh and Honan (planted in May, harvested in September or October); yield per acre, 100 to 275 pounds.

Hemp.—Produced in Hupeh and Honan (planted in February or March, harvested in June).

Millet.—Produced in Hupeh (planted in June, harvested in October), Honan (planted in May, harvested in September), Kansu (planted in April, harvested in August), and Shensi (planted in March, harvested in July or August); yield per acre, 20 to 30 bushels.

Peanuts.—Produced in Hupeh (planted in March, harvested in September), Honan, and Kiangsi; yield per acre, 500 pounds.

Peas.—Produced in Hupeh, Honan, Kiangsi, Kansu, and Shensi; yield per acre, 125 to 200 pounds.

Potatoes.—Produced in Hupeh (planted in February, harvested in June).

Rice.—Produced in Hupeh (planted in June, harvested in September), Honan (planted in April, harvested in August), Kiangsi, Shensi, and Kansu; yield per acre, 1,000 pounds and up.

Sesame.—Produced in Hupeh and Honan (planted in June, harvested in August, September, or October); yield per acre, 12 bushels.

Silk.—Produced in Honan.

Sweet potatoes.—Produced in Honan and Hupeh (planted in May or June, harvested in August, September, October, or November); yield per acre, 40 bushels and up.

Tea.—Produced in Hupeh and Kiangsi (harvested in March and April).

Tobacco.—Produced in Hupeh, Honan, Kansu, Kiangsi, and Shensi.

Wheat.—Produced in Hupeh (planted in September, harvested in May), Honan (planted in October, harvested in June), Kansu, Kiangsi, and Shensi; yield per acre, 8 bushels and up.

The yields given above are not regarded as absolutely reliable, though they represent approximate averages made up from some

20 estimates furnished by American residents in various parts of the district. Most replies stated that no satisfactory basis for an estimate could be reached, but from those giving definite answers the above figures are taken.

Other agricultural products within this consular district are rye in Kansu, buckwheat in Hupeh and Shensi, indigo in Honan and Shensi, and alfalfa in Shensi. Pumpkins are raised in the entire district, and truck farming and gardening are extensively carried on throughout the territory. In fact, agriculture in China assumes rather the character of gardening (because of the small area each farm has) than of actual farming as understood in the west. Irrigation is a prominent feature in Honan and eastern Kiangsi.

The fruits that are found within this consular district are apricots, peaches, pears, persimmons, muskmelons, and watermelons, in addition to citrus fruits in Kiangsi and western Hupeh.

The reports received from the missionaries indicate that wheat is grown more extensively than had been thought, since every return mentions wheat as one of the principal crops.

IMPLEMENTS USED.

The implements used in agriculture are of the most primitive kind. One of the reports to the Hankow consulate states that "the implements refer a person back to the history of Israel." So far as can be ascertained, there has been no change in the agricultural implements, except in rare districts, since the dawn of history. The native plow, single-handed with iron point, drawn by one or two animals, the harrow drawn by one animal, the drag, the wooden mallet for breaking clods, the bamboo flail, the stone roller drawn by one animal for thrashing, the fanning mill of a very primitive kind, the hoes, rakes, axes, sickles (the last-mentioned used for the reaping of grain except in a few instances where scythes and cradles have been introduced), and the wheelbarrow are the important items. In Honan there is a crude four-shoe drill, not automatic, drawn by one animal, that is used in planting grain, but this is not in universal use. The carts are two-wheeled, both high and low, all the former having wooden wheels. In the cotton districts Japanese gins have been introduced in some places, but these are only crude ones. One of the replies from Shensi mentions "antiquated plows, antiquated seeders for three furrows, iron and wooden rakes, the hoe, which is the most important implement, the rake, the spade, the wooden pitchfork, the scythe, which has about an 8-inch blade and 1½-foot handle, the thrashing machine (antiquated), a large round stone to roll over when thrashing, as well as the old-style flails and some fan mills."

BEASTS OF BURDEN AND OTHER LIVE STOCK.

The beasts of burden are the horse, bullock, mule, donkey, ass, and water buffalo. One of the reports gives "horses, cows, oxen, mules, donkeys, water buffalos, as well as men. One often sees a man and a donkey pull together."

The live stock found throughout the district includes pigs, chickens, and ducks. Every farm has its pig, and every family, urban or rural, has chickens. The beasts of burden mentioned above are found in practically every section, except the water buffalo, which is found chiefly in the rice-producing sections. Goats, geese, and a few sheep are to be found in practically all of the district. One of the most noticeable things for a person first arriving in the Yangtze Valley is the relative absence of birds of the air and animals. The district does not contain a large number of cows, and probably one would see not more than a score in a day's travel, yet goatskins and the hides of cattle and buffalos are among the most important items of export from Hankow; necessarily, they are collected from long distances and over large areas of territory.

FERTILIZERS.

No manufactured fertilizer, unless bean cake is considered as such, is used by the farmer. The farmer, however, collects the ashes, garbage, and other refuse to apply to his fields; dog and pig dung is collected for the rice fields; sesame cake is also prominent in some sections; and an extremely limited amount of carbonate and hydrate of lime is found in the western part of Hupeh. It may be stated that animal and human excreta, bean cake, and ashes are the chief (in fact, the only) fertilizers in general use. Along the rivers collection of sediment during low water is very noticeable, the Chinese gardener and farmer making good use of this deposit.

PRODUCTS OF THE SEVERAL PROVINCES.

The silk industry is prominent in Honan Province. It is not as important an industry in Honan as it is in Shantung and other Provinces in the north, but it is worth mentioning.

The most important article of export from Hankow is tea, and the most important section for its production is Kiangsi and Hupeh. All of these fields send their produce to Hankow for sale, making this the chief black-tea market in China.

While cotton is perhaps grown in most parts of China, it grows best in Honan and Hupeh Provinces. It has become one of the principal articles of trade, and in importance ranks third in the exports from Hankow.

Tobacco is a mercantile crop in Hupeh, Kiangsi, Kansu, and eastern Honan and is grown intermittently for local consumption in Shensi. A few years ago there was a considerable stimulus in the growth of tobacco on account of the demand created by the establishment in Hankow of a cigarette plant, which undertook to use Chinese tobacco; thus increasing the production, which had already been augmented because of the prohibition against opium as a farm product. The cultivation of tobacco has not, however, been followed up as it was expected that it would be.

In Hupeh the most important tobacco-producing section is the district around Chunchow, the product reaching the markets of the world through Laohokow. Tobacco is also produced elsewhere, such as a few miles beyond Wuchang and intermittently over the Province.

The Kiangsi tobacco is grown in considerable quantities in the Poyang Lake district and in the east of the Province. It is of a slightly different quality (with a heavier leaf) from that grown in Hupeh.

In Kansu tobacco is grown—probably not very extensively, though the Kansu article is in great demand with the Chinese, and it is stated that it can be found for sale in many places in northern China. Lanchow is one of the chief producing centers in this Province.

In Honan tobacco is found in Siangcheng and Chengchow, the latter in the eastern part of the Province, but it is not generally considered an agricultural product suitable for growth for commercial purposes in other parts of Honan.

Shensi produces some tobacco, but it is only for local consumption and is not considered a mercantile article.

The time for planting and harvesting is about the same in the various Provinces as it would be in the United States. Planting occurs in May and up to the middle of June, and cutting takes place in August and September.

The yield in Chunchow is the greatest in this consular district. An American familiar with the production of this article in the United States and in China states that the yield is phenomenal, reaching as much as 1,500 pounds per acre, and the average in this part of the district would probably be more than 750 pounds per acre. While the yield at Chunchow is the greatest, other districts producing tobacco have an average yield within 100 pounds of that stated for the above district. There are no statistics of production, but it is estimated by what is considered a reliable authority that in Hupeh there are produced annually about 20,000,000 pounds, of which 15,000,000 pounds are sold on the Hankow market. Kiangsi produces 6,000,000 to 8,000,000 pounds, of which about two-thirds is sold on the market for export, while Honan produces about 7,000,000 pounds, of which 6,000,000 are forwarded to Hankow for sale. There is no reliable estimate of the production in Shensi or Kansu.

In the preparation of the land for transplanting, mules and water buffalos are used for plowing, and the tobacco is planted in a manner similar to that employed in the United States, about 24 inches apart.

Bean cake and sesame-seed cake are used extensively as a fertilizer, as is barn manure, but no commercial fertilizer is used by any of the tobacco planters. The same system of cultivation (by the hoe), planting, and fertilizing is used throughout the district. All tobacco is sun-dried, though the system is not the same in all districts; in the Han River district it is hung by a string to dry, while in the Poyang Lake district it is cured on bamboo frames and when curing is completed it is flat. None of the tobacco produced is suitable for anything other than to be manufactured into low-grade cigarettes or for use in water pipes. Though the Poyang Lake article is a slightly heavier leaf, it is not considered to be appropriate for the manufacture of cigars.

In every producing district much of the tobacco is distributed locally and in near-by villages to satisfy the demands of the immediate districts, but from Hupeh, Kiangsi, and eastern Honan the excess is forwarded to Hankow for sale. During the last two or three years it has been purchased chiefly by the Japanese, and during the last year buying agents of Japanese firms have gone into some of the districts to buy directly from the producers. There are other buyers on the Hankow markets, but they are the chief ones, and the tobacco is purchased by them to supply the manufacturers in Formosa.

Recent years have witnessed a wonderful development in the quality and exportation of sesame seed, which is grown very extensively in Honan and to a less extent in Hupeh. Since the opening of the

Peking-Hankow Railway, this item has advanced by leaps and bounds and it is anticipated that the seed will be an extremely valuable article in the export trade of China.

METHODS OF FINANCING AND MARKETING THE CROPS.

There is no recognized method of financing and marketing the crops. Of course the small farmer borrows money, but not in any recognized manner, though the Chinese money lenders have rules by which they advance money to farmers at a very exorbitant rate of interest.

The use to which the farm products are put is quite similar to that in the West. Cereals, of course, are not exported, but other products are important in the export trade of Hankow. The produce from the interior usually reaches the market there either through guilds or by direct shipment to the town by the small merchants. The principal agricultural articles entering into the export trade are tea, raw cotton, sesame seed, groundnuts, beans, tobacco, ramie, silk, and gallnuts. The subsidiary products forming an important feature in the export trade are hides, wood oil, bean cake, vegetable tallow, egg products, goatskins, and animal tallow. Tea, when manufactured into bricks, is sent to Russia, but as black tea it is distributed through European and American countries, the latter taking a considerably smaller percentage than the former. Egg products, which have become so important during the last few years, are sold in Europe and America in about equal quantities. Straw braids and hats are manufactured in Honan Province but do not form an important item of the foreign trade, though they are exported from this district to other parts of China. Beef and pork are important export articles, though the former has become such only since the commencement of the European war. The Allied nations have sent representatives to every station to procure beef directly from the farmer, with very satisfactory results.

MINERALS AND MINING.

There is probably less available knowledge of the mineral resources of Kiangsi than of any other part of China, for, with the exception of the well-known Pinghsiang coal mines and the less known Tan Shan Wan mines, it seems to be a blank; therefore the following data must be considered as excluding Kiangsi Province, where only the above mines are considered. In this consular district there are known deposits of gold, silver, lead, zinc, copper, antimony, iron, coal, fireclay, pottery clay, gypsum, salt, shales, and limestone suitable for cement making, and there are indications that petroleum exists.

In Hupeh the main mineral belt is adjacent to the Yangtze between Wuchang and the eastern boundary of the province, and it continues into Kiangsi. "This area consists of sedimentary rocks, through which have been intruded igneous rocks, and on or near the contacts are numerous occurrences of minerals, of which some have been extensively worked in former times and some are worked to a small extent at present." In northern, western, and southwestern Hupeh are some mineral occurrences of various sorts. Coal is found in a great number of places in the west, obtainable over the valleys of the Han and Yangtze and their tributaries, but the best bituminous coal found in China is said to come from near Tayehsien.

Iron ore is obtainable in a number of places, but in Tayeh it has been operated to a considerable extent and is being mined for the account of the Hanyang Iron and Steel Works. Much ore of the best sort is being exported from that district to Japan.

During 1915 there was established a mining bureau in Hupeh Province; it has been endeavoring to develop the mineral resources, but with just what success is not yet made public. A similar bureau exists in Honan, and nominally one in Shensi, but no great amount of information is obtainable from either. Some work is conducted in Honan, Hupeh, and Kiangsi under the last national mining laws, with local modifications (the latter being usually the principal features of the regulations).

At the present time foreign capital can not be invested under favorable conditions and controlled by foreigners, for it is not considered that private agreements with influential Chinese or the local officials afford satisfactory conditions. It is true that such agreements are in operation in some cases and at times are successful, by reason of the personality of the foreigners concerned. The local officials claim to consider favorably agreements for the operation of mines, but there has been no actual test to ascertain the amount of assistance this would give in view of existing laws. The main difficulty in trying to operate with foreign capital in China is the want of adequate provision under existing laws to protect foreigners against the heavy expenses during the developing stage.

Since the withdrawal of the Standard Oil Co. of New York from the Shensi mine, it is not thought that there are any mines operated entirely under foreign control and management.

FOREIGN VERSUS CHINESE METHODS.

A well-known mining engineer states that less than one-tenth of 1 per cent of the mines in operation in this consular district use modern methods or foreign machinery. The local methods of mining are to get out the available ore in the easiest possible manner, with no provision for future development, and when one hole is exhausted, for any reason, another is started. The Chinese considers this good business, though it is contrary to the best recognized practice of the modern miner. As an example, it is well known that explosives are a necessity for mining, but the Chinese use locally made black powder exclusively. There are no factories for foreign-style explosives in China, and the excessive cost of the imported explosives, together with the fear of the officials that the use of the explosives may be other than for mining, makes it difficult for the Chinese miner to obtain them. It will also be difficult and very expensive for foreigners to get them. While the estimate mentioned above is that of a well-informed mining engineer, one-tenth of 1 per cent would appear to a layman to be decidedly too low when one considers the total output of the various mines, because the Pinghsiang mines use extremely modern machinery and foreign methods as viewed by foreign-educated Chinese mining engineers. The same is true of the Tayeh mines, but to a less degree of the Honan coal mines. Certain it is, however, that with the introduction of foreign machinery, methods, and managing engineers, the mineral resources of this consular district would be increased enormously, and the output would be multiplied many times.

OUTPUT OF IMPORTANT MINES—EXPORTS DURING 1918.

The output of the Pinghsiang coal mines for the year 1917 was: Coal, 288,688 tons; coke, 252,326 tons. The output of the Tayeh iron mines for the same year was: Iron ore, 541,699 tons; limestone, 77,546 tons; dolomite, 14,620 tons. The output of the Tan Shan Wan coal mine on the Yangtze between Hankow and Kiukiang is not known. This plant is modern; it was formerly opened by a French company but was later sold to a Chinese.

The following statistics from the Maritime Customs Returns show the exportation in 1918 of antimony, brass and copper ingots, iron ore, pig iron, and scrap tin:

Metals.	Long tons.	Value.	Metals.	Long tons.	Value.
Antimony:			Iron:		
Regulus	4,043	$827,386	Ore	320,850	$1,350,427
Crude	738	62,709	Pig	119,459	14,221,724
Brass and copper ingots	32	12,282	Tin, scrap	180	3,714

All these metals are taken by the Japanese, except small shipments of antimony to America and Europe.

MINING POTENTIALITIES—POSSIBILITY OF SELLING MACHINERY.

The discussion of the mining potentialities is a big undertaking, and the situation can be presented satisfactorily only by a mining engineer. It is safe to say that there are excellent opportunities for the development of copper, lead, zinc, iron, and coal under favorable conditions for transportation, fuel, and labor, provided equitable agreements could be obtained from the Chinese authorities.

There are very few possibilities for the sale of mining machinery at the present time. This will depend entirely upon the development of mineral resources; as this goes forward, there will be demands for the usual mining machinery—including small hoisting plant, small mining pumps, small smelting plant—and these demands will increase as the industry opens. There might be demands for lead, zinc, and other wet concentration plants. This phase of the situation is dependent upon the development of the mineral resources that are known to exist. Until some satisfactory methods are devised for the development of these resources under foreign or native control, the demand for machinery will be insignificant and such as would be required by primitive methods for surface and near-surface mining.

[Much of the foregoing mining section was prepared by Mr. Frank L. Cole, a mining engineer of Hankow.]

MINES IN ACTIVE OPERATION.

The following mines are in active operation:

Tayeh Iron Mines, Tayeh, Hupeh; property of the Han-Yeh-Ping Iron & Coal Co., Shanghai.
Government Smelting Works, Yaokai, Kansu.
Ching Hua Mining Co.
Pinghsiang Colliery, Han-Yeh-Ping Iron & Coal Co.
Tan Shan Wan Coal Co.
Chiang Ho Mining Co.
Kweichow Mines.

WATERWAYS.

The chief waterways within this consular district forming an important factor in its commerce are the Yangtze River (Yangtze Kiang) and the Han River (Han Ho).

The Yangtze enters this consular district from Szechwan, a few miles west of Batang, and while it is navigable for steamers for more than half the year from that point to its mouth, the dangerous rapids continue to Ichang, which is the western port in the Hankow consular district. The delta of this river is rich; as fine crops as can be found anywhere are produced along its bottoms through the Hupeh and Kiangsi Provinces, and thence to the sea. This great river is navigable for ocean-going steamers to Hankow (595 miles) for about nine months each year, and during all seasons a fine river steamship service is maintained from Shanghai. Above Hankow a steamship service of small vessels is maintained for about nine months in the year to Changsha and the entire year to Ichang.

At certain seasons the water is very low, necessitating the use of steamers of the lightest draft over the upper stage. It may be said that commerce depends upon the specially constructed gorge junks down to Ichang, whence the steamers become an important factor to Hankow. From Hankow to the sea the steamers form the most important means of transportation. While the junks do not disappear, the percentage of cargo carried by them is considerably less than above Hankow—the point which, by reason of the confluence of the Han with the Yangtze, receives for steamer the cargo from the Upper Yangtze, from the Han, and from the south through the Tung Ting Lake. The Yangtze is the most important artery in Central China.

The Hwang Ho, or Yellow River, describes the northern limits of the Hankow consular district, and while it is of considerable importance to commerce, it is more particularly of interest to the Tientsin district; therefore the discussion of it is omitted from this report.

The Tung Ting and Poyang Lakes are useful in furnishing junk routes to convey cargo to Hankow and other important trade centers, where goods are received and dispatched from and to the outside world.

The Yangtze is the only stream upon which foreign vessels are used for commercial purposes.

The chief trading centers situated on the Yangtze are Hankow, Kiukiang, Shasi, Ichang, Wusueh, Wuchang, Hanyang, and Hsinti, the first four of these being open to foreigners. The principal trading centers on the Han, none of which are open, are Tsaitien, Hsientaocheng, Yokiakow, Shayang, Anlu, Icheng, Siangyang, Fancheng, Laohokow, Chunchow, Pehho, Hsinan, and Hanchung.

It is a poor criterion of river freight rates to give the existing abnormally high ones, but the following may be of some use as showing the rate to Shanghai from Hankow on cargo for ocean transshipment: General cargo—1914, 3.10 taels per ton; 1917, 6 taels. Oils—1914, 3.10 taels per ton; 1917, 7.50 taels. Cotton—1914, 3.10 taels per ton; 1917, 4.50 taels.

The Yangtze River is extensively used by foreign vessels, 7,604 having cleared and 7,720 entered, with a tonnage of 2,960,763 and 2,964,930, respectively, during 1918.

RAILWAYS.

PEKING-HANKOW RAILWAY.

The construction of the Peking-Hankow line was begun in 1898 and it was opened for traffic in 1905. Exclusive of branches, it has 755 miles of line. It was constructed by a loan from Franco-Belgian capitalists. This loan was redeemed by one secured by certain provincial taxes, and in 1909 the Chinese assumed control, though many Belgian engineers have been retained. The construction material and the rolling stock were Belgian, though this line has recently purchased a number of American locomotives to replace worn-out ones.

NAN-HSUN RAILWAY.

The Nan-Hsun Railway, a provincial line, runs from Kiukiang to Nanchangfu, a distance of 87 miles. It is of the standard gauge, 4 feet 8½ inches. Its construction was begun in 1906, the first 20 miles were opened to traffic in 1910, and its completion to within a mile of Nanchang was accomplished in 1915. The line was constructed by Japanese engineers from two loans from the Bank of Taiwan, and it is operated by the Chinese under Japanese management. The material used is largely American, as is the rolling stock. Its head office is at Nanchang, Kiangsi Province.

TAYEH IRON MINES RAILWAY.

Between Hwangshihkang and Tiehshanpu, a distance of 17 miles, there is a light railway for the sole use of the Tayeh mines to convey ore to the river. It is owned by the Han-Yeh-Ping Iron & Coal Co. The railway's officers are in the employ of this company and should be addressed: The Han-Yeh-Ping Iron & Coal Co., Shanghai, China.

CANTON-HANKOW RAILWAY.

The Hupeh-Hunan section of the Canton-Hankow Railway is completed and open to traffic from Wuchang to Changsha (286 miles). This line is of standard gauge and was constructed under the Hukuang Loan of £6,000,000 (original loan). It is expected that this line will be connected at Hankow, by a bridge, tunnel, or ferry, with the Peking-Hankow line. Under the Hukuang Loan agreement the engineer in chief is a British subject, as are the subordinates also, except where Chinese are employed. The material and rolling stock are of Chinese and American origin.

SZECHWAN-HANKOW RAILWAY.

The Szechwan-Hankow Railway is to run from Hankow to Ichang, continuing to Kweichowfu. This line was originally to have been constructed with Chinese capital, by Chinese engineers, and work was begun on the Ichang-Kweichow section. Construction was in progress to a distance of 80 miles from Ichang in December, 1910. In May, 1911, the Hukuang Railway Loan Agreement was signed between the Chinese Government and the American, British, German, and French groups, providing for a 5 per cent sinking fund gold loan of £6,000,000, of which £500,000 is to be used for the redemption at a premium of 2½ per cent of certain unredeemed gold bonds of the total par value of $2,222,000 gold issued by the American China Development Co. on behalf of the Chinese Government, and the remainder for the construction (*a*) of a Government railway main line from Wuchang, through Yochow and Changsha, to a point in the district of Yichanghsien on the southern boundary of Hunan, connecting with the Kwangtung section of the Canton-Hankow Railway; and (*b*) of a Government railway main line from Kwangshui in Hupeh, on the Peking-Hankow Railway, through Siangyang and Kingmenchow to Ichang, and thence to Kweichowfu in Szechwan, to be known as the "Hupeh Section" of the Szechwan-Hankow Railway. A German engineer was to superintend the construction of the Kwangshui-Ichang section, and an American engineer will have charge of the Ichang-Kweichow section. During 1915, because of the European war, work was abandoned on the American section. In consequence, survey work on the German section was also interrupted.

At the time of the signing of the loan the line had been under construction on the part of the Chinese for one and a half years, during which period a little more than $3,000,000 is said to have been paid out by the construction department, while material, foreign and local, had been collected to the value of 1,200,000 taels. Eight miles of line had been laid, and construction trains were running for this distance. The embankment and bridges for a further 25 miles had been finished.

Only formation and masonry work has been done on the Hankow-Ichang section, which has been pushed from Hankow about 120 kilometers (75 miles). This is the so-called German section.

The Ichang-Kweichowfu section suspended operation, after completing surveys of the original line and extensions to Chengtu, maintaining only an engineer in chief and a nominal staff for protecting the property. This is the so-called American section.

The so-called German section of this railway has been taken over by the Chinese Government and is under the supervision at the present time (April, 1919) of the American engineer in chief.

CHOWKIAKOW-SIANGYANGFU RAILWAY.

The Chowkiakow-Siangyangfu Railway is only contracted for, but surveys are being rapidly pushed at this date (Apr. 1, 1917). The Siems-Carey Railway & Canal Co. which recently secured a contract designed to provide Kwangsi Province with its first railway communication, means serious business in China.

Hardly had arrangements been made to dispatch survey parties into Kwangsi than the Chinese Government arranged with the company for the construction of another line into regions entirely lacking adequate means of transportation for their products. The proposed line will traverse a rich part of Honan Province, part of the north of Hupeh Province, and will then run into the south of Shensi (another Province that has been devoid thus far of railway communication) by way of the upper Han River valley.

For the time being the eastern terminal of the proposed line is at Chowkiakow, on the Tasha River, in Honan, whence the line will strike direct to Yencheng, on the railway now connecting Peking with Hankow. Thence it will run southwestward, via Nanyangfu, to Siangyangfu, on the Han River, in Hupeh Province. From there it will follow the Han River valley into Shensi Province, the terminal being the city of Hanchungfu. At a later date it is possible that some modification may be made in this route in favor of a continuation of the railway now under construction between

Pukow on the Yangtze River, and Sinyang, on the existing railway between Hankow and Peking, to Siangyangfu.

Siangyang is near the head of navigation on the Han River, and can be reached by small launches. Quite a large junk traffic is maintained, and in summer freshets small junks even traverse the Han River as far as Hanchungfu, the terminus of the proposed line, some 600 miles from Hankow.

The Han River is, of course, the only artery into southern Shensi, and despite its rapids above Siangyang boatmen ply on it as long as water permits, and by taking advantage of freshets and floods, they manage to push right up to Hanchungfu, the journey from Hankow, some 1,120 miles, taking 60 days, and down 15 days. By road from Hankow the distance is but 620 miles, but when the mountains are entered the "road" is only a track over which nothing but pack animals can convey goods. (Far Eastern Review.)

TRAMWAYS.

There are no street cars within the Hankow consular district. There are serious doubts whether a tramway would be a paying undertaking anywhere outside of the treaty ports, and there would be serious objections on the part of the concession owners at Hankow to its introduction into the foreign concessions; it is not thought that during the existence of the five independent concessions any satisfactory proposition could be made to induce the concessions to admit street cars. At least two proposals have been put before the British Council, but each has been considered unfavorable, and really, unless a line could be built outside of the concessions, the time is not ripe for its construction.

ROADS.

There are no real roads outside of the foreign concessions in Hankow. There are paths all over the district; these are better in some localities than in others, and in parts of Honan they are in places broad enough to accommodate carriages, but in the main the paths are only sufficient to accommodate wheelbarrows. Some of the old imperial roads ran through this district en route to the south and west, but it is understood that none of these are sufficiently in repair to permit of their use by motor cars for an extended distance. These paths are in some districts extremely good for single-wheeled vehicles, and along the line of the imperial roads in Shensi and Honan and in the vicinity of the large cities in each of these districts and in Kiangsi there are a few miles of reasonably good carriage roads without any extensive macadamizing. The writer is of the opinion that the construction of a highway between Peking and Hankow would increase American trade more than would a similar expenditure in the construction of railways. Let the highway be surveyed and built along the old imperial road from Peking through Chengtingfu and Kaifengfu to Hankow, to be eventually extended through Yochow and Hengchow to Canton, and not only would the motor-car trade reach proportions never hitherto conceived, but other markets would be multiplied as well. Such a line would be but a beginning that would bring wonderful indirect benefit to the country financing it in the way of increased trade in new and old lines, and it might prove the salvation of China. Railways are fine, but highways are indispensable for the best development of China in any direction. In China they would be an innovation that would be the making of the nation in more ways than one. A combination of the automobile manufacturers, road-material manufacturers, and engineers to supply the finances for the promotion and construction of a main highway has been suggested by the Hankow consulate, because it is confidently considered that it will be the best means of developing the largest market for automobiles and would be of the greatest possible benefit to China.

POSTAL FACILITIES.

The Chinese post office is materially superior to what one would expect of a service so new, whose ramifications are so extensive. It would seem that the Hankow district is keeping pace with the best in the development of its postal service, which is so good that it is understood that the foreign post offices are suffering from the effect of the competition. The business at the Hankow post office during 1917 was as follows: Articles dealt with, 39,557,824 (including registered articles, express, and insured letters); registered articles, 3,853,900; express letters, 290,800; insured letters, 3,524; articles collected from letterboxes, box offices, and pillar boxes, 2,460,300; letters in native clubbed mails, 486,700; parcels, 750,700, weighing 2,548,900 kilos (5,619,305 pounds); money orders issued, $1,542,300 Mex.; money orders cashed, $1,013,900 Mex.

During 1916 parcel post was established between China and the United States, and, Hankow being served by steam, the parcel post may be delivered from Hankow to the United States or vice versa without extra charge. The international money-order facilities are confined to the foreign post offices; the time required for the first-class mail matter to be delivered from New York is from 30 to 37 days.

The following foreign post offices are maintained: Great Britain, at Hankow; France, at Hankow; Japan, at Hankow, with agencies at Tayeh, Kiukiang, and Shasi; Russia, at Hankow.

TELEGRAPHS.

The telegraph service leaves much to be desired in efficiency, though its extent is greater than one might expect. There are 34 stations in Hupeh, 20 in Honan, 18 in Kiangsi, 5 in Shensi, 11 in Kansu, and 16 in Sinkiang. The rate for transmission is the established rate for all China—9 cents per word in a foreign language, 6 cents in Chinese to all places in the Province, and 18 cents and 12 cents per word, respectively, to all other parts of China. Connection is maintained from Hankow to Shanghai, Peking, Changsha, Chungking, and intermediary as well as more remote points. Wheatstone apparatus is installed in Hankow.

Cable connections with the United States are through Shanghai, and the rate per word is $1.75 Mex.[1] to San Francisco and $1.95 Mex. to New York.

TELEPHONES.

There is a telephone system at Kiukiang with Kuling connection, but the number of telephones does not exceed a dozen.

A new system has recently been installed in Hankow, connecting the Wuhan cities, with a present subscription of 2,300 telephones and a potential system of 2,300 immediate and 10,000 ultimate capacity. The system has taken the place of the German system that was acquired in 1915 by the Chinese Government. It was installed by the Nippon Electrical Co., a Japanese concern, with Japanese and a small amount of American equipment. The plant is housed in a new building, and is modern in every particular. The schedule of rates is as follows for an unlimited service:

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[1] See footnote on p. 84.

AUTHORIZED CHARGES FOR SERVICE.

Instruments.	Inside boundary.	
	Initial fees.	Subscription per annum.
	$ Mex.	*$ Mex.*
Business telephone	15	84
Private telephone	15	72
Extension telephone under same roof	8	24
Extension telephone up to 50 yards from main instrument	10	35
Extension bell	5	6
Three-line switch	6	8
Five-line switch	8	12
Eight to 100 line switch	(a)	(a)

MOVING FEES.

Instruments.	Inside boundary.	
	To another house.	In same house.
	$ Mex.	*$ Mex.*
Main telephone	15	8
Extension telephone up to 50 yards from main instrument	10	6
Extension bell	5	3
Three-line switch	6	4
Five-line switch	8	5
Eight to 100 line switch	(a)	(a)

[a] The rates in these cases are fixed by special arrangement. If an extension telephone of more than 50 yards from main instrument is desired, or a special intercommunication system, a special arrangement must be made in each case. For table telephones an extra charge of $10 per annum is made.

NEWSPAPERS AND ADVERTISING RATES.

The principal newspapers in the Hankow consular district and their advertising rates (in Chinese silver currency) are:

The Central China Post (British), Hankow. Advertising rates: One month, $5 Mex. per inch, single column, per month; two months, $4 Mex. per inch, single column, per month; three months, $3 Mex. per inch, single column, per month; four months and over, $2.50 Mex. per inch, single column, per month. Discount—5 inches, 10 per cent; 10 inches, 15 per cent; 15 inches, 20 per cent; 20 inches, 25 per cent.

The Hankow Daily News (German), Hankow. Advertising rates: Per inch, single column, per month, 2 taels; per inch, single column, per day, 1 tael; per inch, single column, for every additional day, $0.30 Mex. Discounts are given for large advertisements on a sliding scale.

The National Gazette (Kuo Ming Hsin Pao) (Chinese), Hankow. Advertising rates: On the first day, $0.005 per character; on the second and third days, $0.0035 per character; after the fourth day, $0.0025 per character per day; after the eighth day, $0.002 per character per day; half a month, per column, $1.50 Mex.; one month, per column, $2.50 Mex. The price for advertisements on the cover and between the pages of the paper is double. The minimum number of long columns is three. The minimum number of characters in short columns is 50. The minimum number of days for an advertisement is three. The charge on trade-marks or stamps is calculated according to the space occupied. Advertisements concerning lawsuits or libel will not be inserted unless guaranteed by shop "chops," and the subscription for them must be paid in advance.

The Hankow Times (Hankow-Chung Hsi Pao) (Chinese), Hankow. Advertising rates: On the first day, $\frac{1}{2}$ cent Mex. per character; from the second day to the seventh, $\frac{3}{10}$ cent Mex. per character per day; after the seventh day, $\frac{1}{5}$ cent per character per day. On advertisements published for one month there is 25 per cent discount. The rate for each line of characters is $2.50 Mex. The minimum advertisement is three lines (when the line is long) and it must be published for three days. The space occupied by cuts or trade-mark designs is charged according to the number of words that can be inserted in the same given space. Special rates for long periods (for a season or a year) can be arranged. Half price is paid in advance for advertisements for half a year or a whole year. The minimum advertisement is 50 characters and it must be published for three days, and for such advertisements no special cuts may be used. The price is as above mentioned. Advertisements to be put before the editorial section pay a double charge and those on the cover do likewise. For advertisements inserted between pages, an additional half price is added to the proper charge. Those put among news items are charged trebly.

Ta Han Pao (Chinese), Hankow. Advertising rates (minimum advertisements for long lines, three lines and three days): On first day, $0.40 per line; from second to seventh day, $0.25 per line per day; from eighth day, $0.25 per line. The price for advertisements between pages and on the front page is double. The minimum number of characters for short lines is 100, and the rates are: On first day, $0.06 per character; from second to seventh day, $0.04 per character; from eighth day, $0.03 per character. If the advertisement is of less than 10 characters, it is charged as if it were of 10. All payments must be in silver dollars. Charges for annual advertisements may be arranged.

Hankow Sin Wen Pao (Chinese), Hankow. Advertising rates (minimum advertisements for long lines, three lines and three days): On first day, $0.50 per line; from fourth day, $0.30 per line; from eighth day, $0.20 per line; before the editorial, on front page, and between pages, 50 per cent additional; by the month, $3 per long line. Rates for short advertisement of 100 characters: On first day, $1; from second day, $0.60 per day; from seventh day, $0.40 per day. Charges must be paid in advance, and dollars under par will not be accepted.

Public Opinion (Chinese), Hankow. On the front page the minimum advertisement is two columns, and the rates are: On the first day, $1 per column; from second to seventh day, $0.75 per column; from eighth day, $0.50 per column. On other pages the minimum advertisement is three columns, and the rates are: On first day,

$0.40 per column; from second day, $0.30 per column. The minimum number of characters for short columns is 50, and the rates are: On first day, $0.006 per character; from second day, $0.004 per character.

Hukuang Hsin Pao (owned by Japanese but published in Chinese), Hankow. The minimum advertisement is three lines for three days, every line to be of 50 characters and any number of words less than 50 to be reckoned as 50. The rates are: From first to third day, $0.20 per line per day; from fourth to seventh day, $0.15 per line; eighth day and after, $0.10 per line. Long-period advertisements can be arranged. Cuts and trade-marks are charged for according to space occupied. Rates for specially placed advertisements are $0.50 per line, with gradual reductions according to number of days inserted.

PUBLIC WORKS AND SANITATION.

There is some irrigation in remote parts of this district, but there is no general project large enough to be included in this report. There has been no reclamation of importance except that the Bund in Hankow has been extended and strengthened to resist the river. The reclamation is purely for increasing the available land for buildings and wharves. A very important reclamation was completed in 1916, extending the broad Bund some 400 feet up the river into the Chinese city.

Waterworks are established in Hankow (native city and concessions), Hanyang, and Kaifengfu. Electric lights are installed in Hankow, Wuchang, Hanyang, Shasi, Ichang, Kaifeng, and the Pinghsiang Collieries. The service in Hankow is well adapted to the needs, and at Kaifengfu it will be, but no words of praise are heard for the other installations. Only surface sewerage exists in the entire district, with occasional septic-tank service in Hankow. The fire service in the foreign concessions in Hankow is efficient (though a volunteer one), with modern equipment. In the Chinese cities will often be found a fire brigade, but those seen by the writer impress one humorously rather than as seriously efficient.

Prospective developments are worth watching, because many communities would consider sympathetically a proposal for lights, and it is far better that any scheme of this character should have its inception protected by foreign education rather than have a dangerous installation made. The British concession has long had under consideration the erection of a much-needed abattoir, but improvements will be slow while freight rates are as prohibitive as they are now.

The electric-light plants in the district are the following:

Companies.	Location.	Nationality.	Machinery.	Current.	Voltage.
Hankow Light & Power Co	Hankow	British	British	Direct	440
Hankow Waterworks & Electric Light Co.	do	Chinese	do	do	440
Hanyang Iron & Steel Works	Hanyang	do	American	do	440
Kwang Ming Electric Light Co	Ichang	do	German	do	220
Melchers & Co.	Hankow	German[a]	do	do	220
Pinghsiang Colliery	Pinghsiang	Chinese	do	do	250
Pu Chao Electric Light Co	Shasi	do	do	do	220
Pu Ling Electric Light Co	Kaifengfu	do	do	Alternating	100
Tai Shoh Electric Light Co	Hankow	Japanese		Direct	440
Wuchang Electric Light Co	Wuchang	Chinese	German	Alternating	220

[a] Taken over by the Chinese authorities.

The Hankow waterworks are owned by the electric light company, have British machinery, and supply the concessions and the Chinese city. The capacity exceeds all the demands and the plant is one of the most modern and efficient in China. The Kaifengfu plant is also privately owned. There were tentative arrangements for the construction of waterworks at Wuchang, made prior to the war, but no progress has been made and the intentions are shrouded in some mystery.

TREATY PORTS AND FOREIGN CONCESSIONS.

The treaty ports of this consular district are: Kiukiang, Kiangsi Province, about 454 miles from Shanghai; Hankow, Hupeh, 142 miles farther up the Yangtze; Shasi, about 308 miles above Hankow; and Ichang, about 393 miles above Hankow—all on the Yangtze River. There are the following ports of call: Hukow, Kiangsi, Wusueh, and Lukikow.

Shasi was opened up by the Sino-Japanese Treaty of 1895, and in 1910 was estimated to have a population of 95,000. It is 308 miles above Hankow and is in the central part of the Hupeh plain, with canals radiating from it through the plain and into Hunan. One such canal connects it directly with Hankow by a much shorter route than that taken by steamers on the Yangtze; and to this canal must be attributed its failure to develop as a river port. At one time it was the ordinary place of transshipment for the Szechwan trade, but its importance has gradually declined in favor of Ichang. The only consular representative is that of Japan. The foreign population consists of the customs staff, missionaries, and less than a dozen others.

Ichang is 393 miles above Hankow and 85 miles above Shasi on the Yangtze River and has a population of 55,000. It was opened to trade by the Sino-British Treaty of 1876. It is commercially important as the terminus for light-draft vessels on the Yangtze River, this condition making it possible for the port to handle the trade of the rich Province of Szechwan. If the proposed railways are completed, it will be an important railway center as well. Germany, Great Britain, and Japan maintain consulates at Ichang. Foreign residence is limited to the small area on the river front. There is a large missionary community, the Maritime Customs staff, the post office employees, and representatives of 11 foreign firms seeking the upper-river trade.

Hankow, with Hanyang and Wuchang, the provincial capital, is located at the juncture of the Han and Yangtze Rivers, and these three cities are generally considered together and termed the "Wuhan cities." They have an estimated native population of 1,500,000 inhabitants. Hankow was opened up by the Sino-British Treaty of 1858 and holds its present important position, commercially and industrially, because it taps the rich Han Valley, because it is the terminus for heavy-draft vessels connecting with Shanghai, and finally, because it is the center of a proposed network of railways to connect all parts of China. Foreign concessions are owned at Hankow by Great Britain, France, Russia, Germany, and Japan. These concessions are administered very much like a small municipality in Europe or America. Each has a council provided by the rate payers, and the consular officer is the official head of each local settlement.

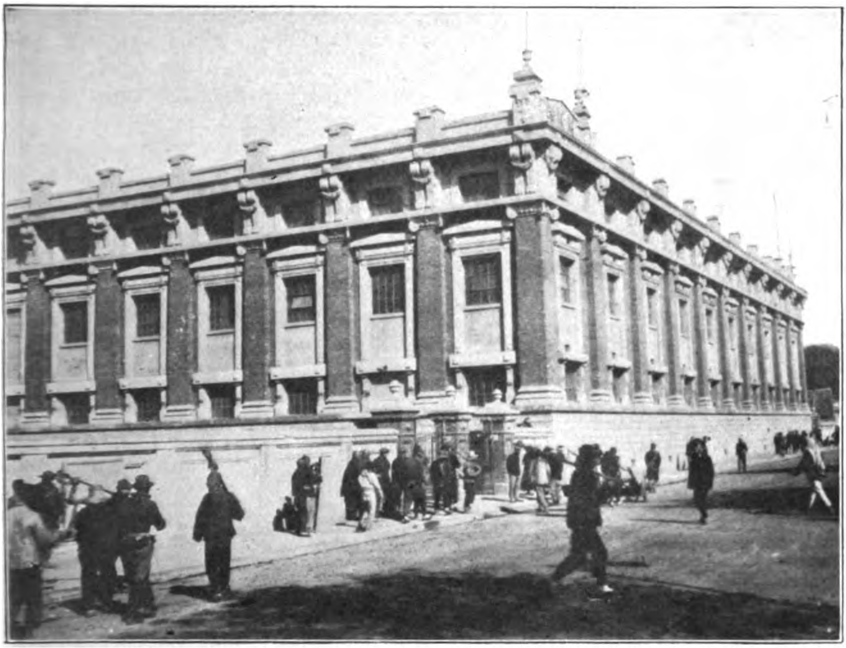

FIG. 9.—JAPANESE "GODOWN" (WAREHOUSE), HANKOW.

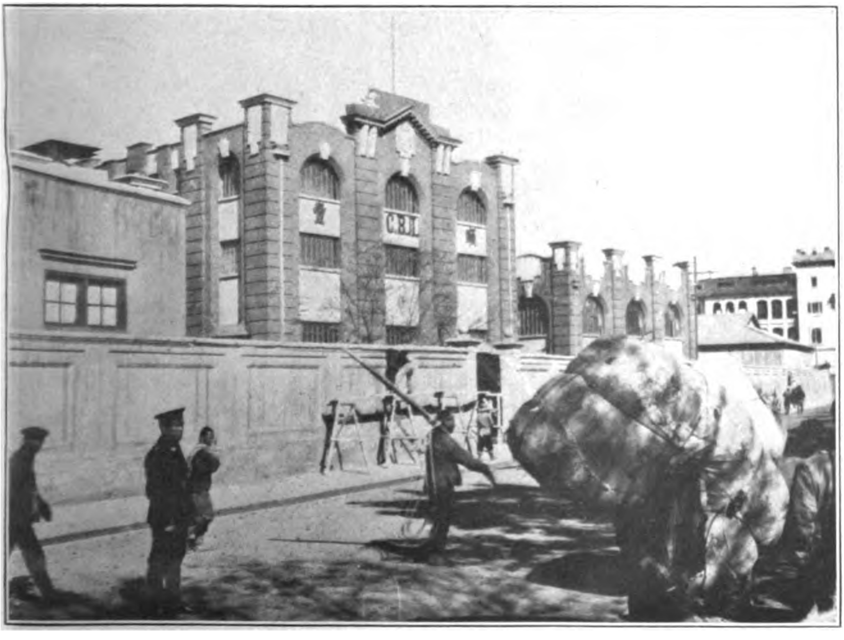

FIG. 10.—RUSSIAN COMPANY'S TEA BRICK FACTORY, HANKOW.

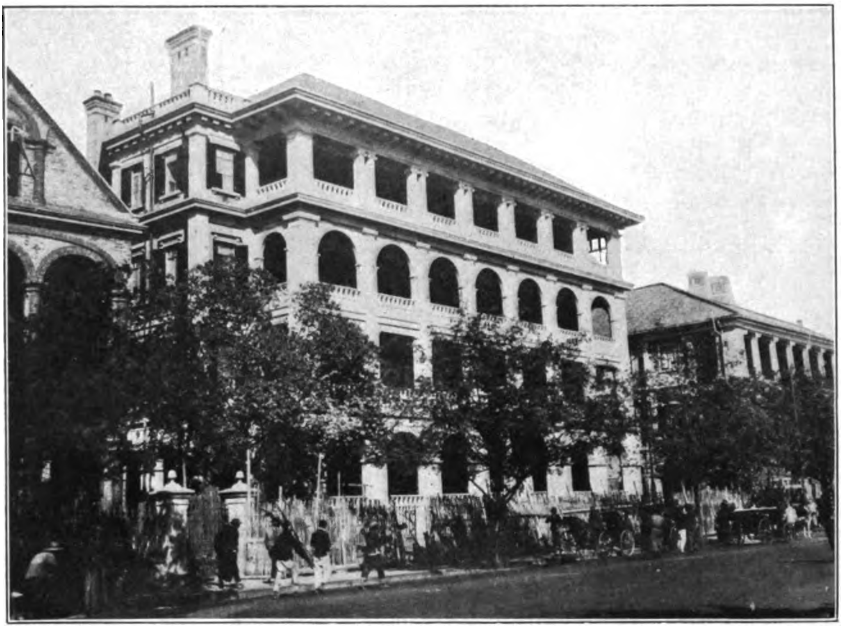

FIG. 11.—NEW OFFICE BUILDING FOR ENGLISH FIRM, HANKOW.

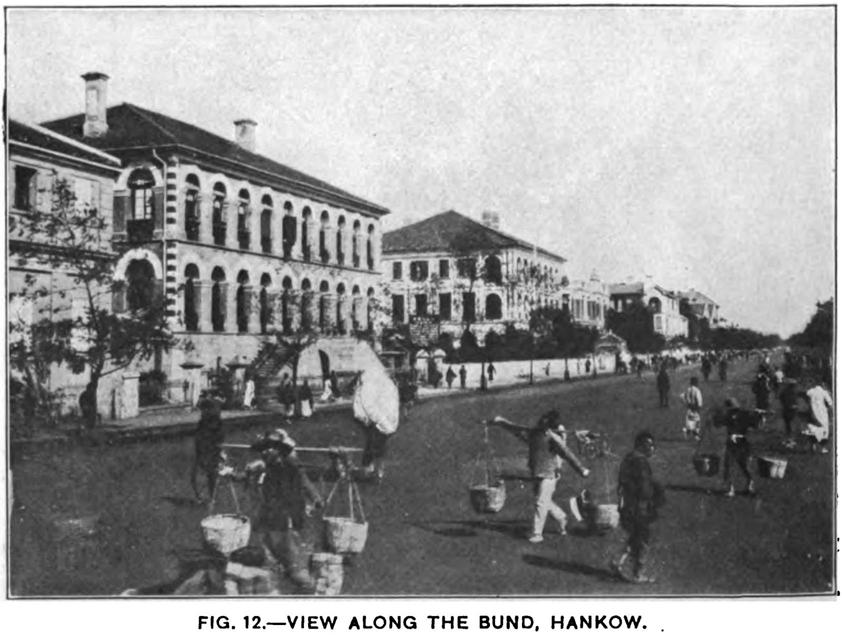

FIG. 12.—VIEW ALONG THE BUND, HANKOW.

In addition to the concession-owning nations, consular representation is maintained by the United States, Italy, Belgium, the Netherlands, Denmark, Norway, Sweden, and Mexico, the last five being represented by merchant consuls.

Kiukiang is the only treaty port in Kiangsi Province, unless the Kuling summer resort on the top of the mountain, west of the city, is considered as a treaty port. Kiukiang has a population estimated to be 36,000. The foreign merchants' residences are limited to the concession fronting the river. The small concession has a municipal council, of which the British consul is the head, and there are estimated to be 50 foreigners, including the missionaries, residing at this port. The nations represented by consular officers are Great Britain and Japan.

Kuling, 14 miles from Kiukiang, is a small settlement of perhaps 50 persons in winter and 1,800 in summer. It is a splendid summer resort. Foreigners are allowed to own property in this place, and it is governed by the lot owners, who have an annual rate-payers' meeting.

FINANCE AND BANKING.

The currency in circulation in Hankow consists chiefly of the Hupeh and Yuan dollars, which have rapidly supplanted the Mexican dollar, which was circulated to a considerable extent some time ago. The Hupeh and Yuan dollars are the only legal tenders for debt in Hupeh Province. Their value is the same. In addition to these dollars, some foreign banks located in Hankow issue bank notes for dollars, and these circulate freely within the city on a parity with the silver and Bank of China notes. The Hankow tael is a currency usually employed in commercial transactions of large character. The value of the Hupeh or Yuan dollar compared with the Hankow tael varies from 69.5 to 71, and 70 can be considered as a normal exchange rate from taels to dollars. The difficulties in foreign commercial transactions are fluctuations in the exchange value of the local currency, which is based upon silver, the lack of banking interests willing to advance money to pay for commodities for import or export, and the scarcity of currency at some periods. The scarcity of money could be overcome to a certain extent by the issuance of notes by the foreign banks which at the present time do not issue them and by increasing circulation by other banks. The foreign rate of interest for commercial transactions is 7 per cent and the native more than 7 per cent.

The foreign banks located within the port of Hankow are:

Asia Banking Corporation (American).
Banque Industrielle de Chine (Franco-Chinese).
Banque de l'Indo-Chine (French).
Chartered Bank of India, Australia, and China (British).
Credit Foncier d'Extrême Orient (Belgian).
Hongkong and Shanghai Banking Corporation (British).
International Banking Corporation (American).
Russo-Asiatic Bank (Russian).
Sumitomo Bank (Japanese).
Taiwan Bank (Japanese).
Yokohama Specie Bank (Japanese).

These banks transact exchange business and finance exports; they depend for their dividends almost entirely upon profits in exchange and the collection of bills. Some of the banks afford special facilities to reliable exporters by providing credit, retaining lien on the property when purchased.

The Chinese banks are the Bank of China, Bank of Communications, Industrial Bank, Territorial Bank, Hunan Bank, Chung Foo Union Bank, National Commercial Bank, Salt Industrial Bank, Wei Fung Commercial Bank, Wei Tung Bank, Wha Feng Bank, Chung Chuin Yuen Bank, Ningpo Commercial Bank, Teh Sing Bank, and Dei Fong Bank. These banks do nothing in foreign exchange. They advance money to native dealers, usually at a rather high rate of interest, though they allow on time deposits from 4 to 5 per cent, which is in excess of the interest given by foreign banks. The functions of the native banks in relation to the native trade are very much like the functions of similar institutions in the United States that do not transact exchange business.

MANUFACTURING AND OTHER INDUSTRIES.

The last decade has seen the advance of the egg industry to a most important place in the Hankow district; wood-oil plants have developed; engineering plants have grown to keep pace with the demands; a cold-storage plant has been established to export meat products; paper mills have long been important, but this period has seen the introduction of modern machinery; cotton mills have been built; smelting plants have been established, largely as the result of the high prices of antimony; in fact, during 10 years many industries have been initiated, and previously established ones have been strengthened by being modernized. Of the manufacturing plants of this consular district, the Hanyang Iron and Steel Works stands easily first in importance, particularly when it is considered in connection with the improvements being made at Tayeh for the production of different kinds of metal. It may be said to be the premier plant of China.

The Han-Yeh-Ping Co. is erecting a modern industrial city at Wanshihkang, on the Yangtze River, about 75 miles below Hankow, to provide for the expansion of the blast furnaces and other work for 20 years to come. Sanitation, lighting, ventilation, streets, and sewers are all carefully planned.

Other important plants are the Yangtze Engineering Works, the Hankow Iron & Engine Works, the Government Arsenal, the Government Powder Factory, the Government Mint, 2 modern paper factories, 3 cotton mills, 2 antimony smelting mills, 11 oil mills (of which 8 are modern), 1 nail and needle plant, 9 plants manufacturing egg products, 1 large cold-storage plant, 2 ice plants, 6 flour mills, 1 cement works, 2 brick and tile plants, 3 modern aerated-water works, 4 electric light plants, 1 cigarette factory, 1 woolen mill, 1 silk filature, 4 hydraulic presses, 6 tea factories, 1 cask factory and sawmill, 5 candle factories, 2 soap factories, 1 distillery, 1 tannery, and 2 match factories. The foregoing plants use more or less modern machinery, and some of them are under European management and have foreign capital invested in them. Besides these there are a vast number of small works employing antiquated methods for the manufacture of cotton thread and cloth, and of cloth by hand looms from grass and bamboo. Also, timber is sawn by manual labor, matches are turned out from small plants, flax is spun, rope is made, and various other domestic articles are produced by methods that are primitive but are useful in the economic industries of the country. To these might be added a number of other metal-working plants, such as those producing white brass, silversmiths' work, and other articles of small importance.

Outside of the Wuhan cities only small native industries now exist. At Laohokow, for example, are oil presses, looms for silk and cotton weaving; at Laifeng are tile works and an umbrella-manufacturing plant; at a few places are pottery works; at Shihnan is a bamboo plant; at Honanfu are made straw hats, hemp, cotton cloth, and cutlery; at Yokiakow is produced a splendid hand-made cotton cloth used for making flour bags; at Ichang is made blue-thread embroidery; at Lantien the Government has instituted a weaving-dying school, which is still in its infancy. These are small native industries and do not deserve to be considered as an international commercial asset, though they are important to the local community in which each is located.

The following is a list of the principal manufacturing plants, all of which are Chinese except when otherwise indicated:

AERATED-WATER MANUFACTURERS.

Hankow Dispensary (Ltd.), Hankow (British)
Niagara Aerated-Water Factory, Hankow (foreign).
Wilson & Co., Hankow (British).

ANTIMONY SMELTERS.

Carlowitz & Co.'s Antimony Refining Works, Wuchang (German)
Government Antimony Smelting Works, Wuchang.
Panoff's Antimony Smelting Works, Hankow (Russian).
Sino-German Ore Co. (Schwarz, Gaumer & Co.), Hankow (German).

ARSENAL.

Government Arsenal, Hanyang.

BRICK AND TILE WORKS

Hankow Brick and Tile Works, Hankow.
Hanyang Iron and Steel Works, Hanyang.

CANDLE FACTORIES.

Candle factory of the Standard Oil Co., Hankow (American).
Hsieh Yung Mow Candle and Soap Factory, Hankow.
Kwang Hwa Candle Factory, Hankow.
Seng Mow Candle and Soap Factory, Hankow.
Tung Mow Candle and Soap Factory, Hankow.

CEMENT WORKS.

Hua Chi Hupeh Cement Works, Tayeh.

CIGARETTE FACTORY.

British Cigarette Co., Hankow (British).

COLD STORAGE.

International Export Co., Hankow (British).

COTTON MILLS.

Hsing Yeh Cotton Weaving Co., Wuchang.
Hupeh Government Cotton Weaving Mill, Wuchang.
Hupeh No. 1 Weaving & Spinning Co., Wuchang.

DESICCATED-EGG PLANTS.

Anderson, Meyer & Co., Hankow (American).
A. Grosjean & Co., Hankow (French).
Ho Chang, Wuchang.
International Export Co., Hankow (British).
Lih Tai, Tachimen, Hankow.
Société Anonyme Belge, Hankow (Belgian).
Teh Kang, Hankow, on the Han River.
Tuk Wo Egg Produce Factory, Yencheng, Honan.
Yuen Feng Co., Hankow.

DISTILLERY.

Société Franco-Chinoise Distillerie de Hankow (French).

ELECTRIC LIGHT PLANTS.

Hankow Light & Power Co., Hankow (British).
Hankow Waterworks & Electric Light Co., Hankow.
Kaifeng Electric Light Co., Kaifengfu.
Kwang Ming Electric Light Co., Ichang.
Melchers & Co., Hankow (formerly German; now taken over by Chinese authorities).
Pu Chao Electric Light Co., Shasi.
Tai Shoh Electric Co., Hankow (Japanese).
Wuchang Electric Light Co., Wuchang.

ENGINEERING WORKS.

Fok Chong Engineering Works, Hankow.
Koon Cheong Engineering Works, Hankow.
Yangtze Engineering Works, Hankow.

FLOUR MILLS.

Ah Fung Flour Mill, Hankow.
Chin Loong Flour Mill Co., Hankow.
Hung Feng Flour Mill, Hanyang.
Huo Feng Flour Mill, Hanyang.
Kung Tai Flour Mill, Hankow.
Yu Loong Flour Mill, Hankow.

HYDRAULIC PRESS PACKING FACTORIES.

China & Java Export Co., Hankow (American).
Liddell Brothers & Co., Hankow (British).
Mackenzie & Co., Hankow (British).
Nippon Menkwa Kabushiki Kaisha, Hanyang (Japanese).

ICE WORKS.

Hankow Ice Works, Hankow (British).
Crystal Ice Co., Hankow (foreign).

MATCH FACTORIES.

Set Chong & Co., Hankow.
Shui Hwa Match Factory, Hankow.

MINT.

Government Mint, Wuchang.

NAIL AND NEEDLE FACTORY.

Hanyang Nail and Needle Factory, Hanyang.

OIL MILLS.

Bean and Cottonseed Oil Factory, Hanyang.
Cotton and Bean Oil Pressing Factory, Hanyang.
Fu Ho Oil Mill, Hanyang.
Japan-China Oil Refining Co. (Ltd.), Japanese Concession, Hankow (Japanese).
Mei Sheng, Hankow.
Shung Fong Oil Mill, Hanyang.
Sin Sen Bean Oil Factory, Hanyang.
Tien Shun Oil Mill, Hanyang.
Yu Fung, Hanyang.
Yuen Feng Oil Mill, German Concession, Hankow.
Yung Chang Yuan Oil Mill, Hanyang.

PAPER MILLS.

Government Paper Mill, Seven Mile Creek, Hankow.
Hupeh Paper Mill, Wuchang.

POWDER FACTORY.

Government Powder Factory and Chemical Works, Hanyang.

SAWMILL.

Hankow Sawmill and Woodworking Factory, Hankow (German).

SILK FILATURE.

Wuchang Silk Filature, Wuchang.

SOAP FACTORIES.

Hsien Yung Mow Candle and Soap Factory, Hankow.
Kwang Hwa Candle Factory, Hankow.
Min Hsin Soap Factory, Hankow.
Pao Tai Soap Factory (Burtenshaw & Co.), Hankow (British).
Seng Mow Candle and Soap Factory, Hankow.
Tung Mow Candle and Soap Factory, Hankow.

STEEL FOUNDERS AND MANUFACTURERS.

Hanyang Crucible Steel Factory, Hanyang.
Hanyang Iron and Steel Works, Hanyang.

TANNERY.

Government Leather Factory, Wuchang.

TEA FACTORIES.

Hung Shan Tea Factory, Hankow.
S. W. Litvinoff & Co., Hankow (Russian).
Molchanoff, Pechatnoff & Co., Hankow (Russian).
Nakvasin & Co., Hankow (Russian).
C. & S. Popoff Frères, Hankow (Russian).
Trading Co., Hankow (Russian).

WATERWORKS.

Hankow Waterworks & Electric Light Co., Hankow.

WOOLEN WORKS.

Hupeh Government Wool Factory, Wuchang.

It is reported that one of the largest cotton mills in China is to be erected to the north of Wuchang. It is planned to install 1,000 weaving machines and over 40,000 spinning frames. The machinery is of British and American manufacture. Two thousand workers will be employed, and the promoters are planning to erect 300 dwelling houses to accommodate the spinners and weavers.

There exists a splendid opportunity for the installation in Hankow of a modern up-to-date cold-storage plant for exportation of game, poultry, eggs, pork, and beef. A bean-oil mill for compressing peanuts is worth consideration. A cotton mill could find cheap labor and raw products. In fact, any manufacturing plant using the raw products of China would do well to investigate the potentialities of Hankow before locating elsewhere.

COMMERCE OF THE PORT: INTRODUCTORY SUMMARY.

The table below gives the total imports and exports, foreign and Chinese, through the Maritime Customs at Hankow during the years 1904, 1913, and 1917:[a]

Imports and exports.	1904	1913	1917
Imports of foreign goods:			
From foreign countries and Hongkong	$9,099,140	$25,281,421	$39,695,700
From Chinese ports	28,950,616	21,904,895	22,073,068
Total foreign imports	38,049,756	47,186,316	61,768,768
Reexports of foreign goods:			
To foreign countries and Hongkong	14	18,508	57,952
To Chinese ports	11,672,969	8,058,500	10,615,412
Total foreign reexports	11,672,983	8,077,008	10,673,364
Net total foreign imports	26,376,773	39,109,308	51,095,404
Imports of Chinese products	22,172,166	21,411,535	43,244,232
Reexports of Chinese products:			
To foreign countries and Hongkong	1,188,320	2,469,082	2,567,807
To Chinese ports	15,861,948	5,243,607	17,136,511
Total Chinese reexports	17,050,268	7,712,689	19,704,318
Net total Chinese imports	5,121,898	13,698,846	23,539,914
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	3,883,827	9,967,994	11,221,391
To Chinese ports	40,906,558	51,206,006	98,531,762
Total exports of local origin	44,790,385	61,174,000	109,753,153
Gross value of the trade of the port	105,012,307	129,771,851	214,766,153
Net value of the trade of the port	76,289,056	113,982,154	184,388,471

EXPORT TRADE.

Statistics are useful in showing the development of an interior port, but they do not adequately represent the growth of the place, for reasons that are apparent. The Maritime Customs Returns do not reflect the importance of Hankow as a port of export. It is the premier port for handling the raw products of China, and this has, during the past few years, been recognized more than ever. The exports (including reexports) from Hankow in 1904 were $61,840,653, in 1913, $68,886,689, and in 1918, $138,338,432.

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[a] EDITOR'S NOTE.—The year 1917 is the latest for which it is possible to obtain this summary of values. In the sections on "Export trade" and "Import trade," however, the reader will find 1918 figures.

Hankow's position makes it the natural storehouse for all the products of Hupeh, southern Honan, Hunan, Shensi, Kansu, and Szechwan. A glance at the map is sufficient to convince anyone of this, when it is realized that the Han, the Yangtze, and their tributaries are navigable for small junks at some season each year. These streams carry down junks and barges of all sizes and descriptions, laden with the products of the various sections, and it often happens that the barges are sold for timber or lumber at Hankow.

Not only does nature indicate the junction of these streams as the favorable place for collecting the products, but every railway built or contemplated for central China has one terminus at the Wuhan cities. The mind of the engineer has recognized the intention of nature and is augmenting the natural facilities by constructing railways to Hankow. The opening of the Peking-Hankow Railway did much to bring to the port the products from parts of Honan not previously reached, but the Canton-Hankow and Hankow-Ichang Railways are simply auxiliaries to the natural freight carriers, and the proposed lines to the west will be the same; they will all be sound investments.

No one can study the map without being impressed with the importance of Hankow as the place to find the products of central and western China, and no one can leave the place after a thorough study without an absolute conviction of the accuracy of his first impression that Hankow is primarily a port of export, and as such is the premier port in China.

The conditions handicapping export trade are to be found in human attempts to contradict nature or the failure of man to supply the facilities to hasten exchange of oversea export trade. They consist, in part, of the absence of adequate purchasing agents acting independently of Shanghai; the failure of banks to assist the development of the trade by advances equal to those that would be made if the cargo were at a seaport; the high rents; the high cost of living; and, for America, the absence of adequate American bottoms across the Pacific, and the total absence of American vessels on the river to act as feeders to the ocean-going ships. The establishment of American river steamers is almost as essential as are the ocean-going steamers. Foreign banks are numerous and there are indications that the Europeans are extending greater aid in the way of credits than formerly. The general shipping facilities are good for everyone but Americans. The following table furnishes a comparative statement of the principal exports (including reexports) for the years 1904, 1913, and 1918:

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Albumen ....pounds..	700,000	$93,218	1,629,866	$437,511	6,813,600	$3,213,124
Antimony ....do....	14,335,000	409,159	18,137,200	396,061	11,716,800	890,095
Beans ....do....	355,811,000	5,192,129	235,181,067	2,846,064	142,617,333	2,367,601
Bean cake ....do....	71,133,000	303,036	306,667,067	3,117,846	158,417,333	1,998,589
Bones ....do....	6,421,000	23,933	14,542,667	101,017	9,107,200	94,910
Bran ....do....	2,317,000	23,638	28,683,600	208,703	16,482,400	166,658
Bristles ....do....	2,646,000	750,242	1,855,600	741,781	2,785,333	2,323,165
Chestnuts ....do....	18,000	4,025	749,600	8,903	649,467	19,176
Chickens, frozen ......number..	....	....	816,375	79,019	....	....
Cigarettes ....pounds..	....	....	4,206.133	971,920	3,042,667	1,411,659
Coke ....do....	16,658,000	52,802	18,939,200	59,188	....	....

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Cotton, raw............pounds..	54.719,000	$5,244,886	29,916,800	$3,884,834	144,428,533	$35,111,665
Eggs, fresh............number..	34,590,000	83,125	26,888,194	110,828	14,554,500	103,834
Eggs, frozen............pounds..	....	....	10,226,000	448,924	2,195,733	188,605
Egg yolk............do....	....	....	8,548,934	346,830	9,420,267	2,498,466
Flour............do....	112,000	3,387	42,478,267	912,370	21,048,133	916,869
Gallnuts............do....	....	....	5,938,800	648,608	5,389,467	1,087,764
Groundnuts:						
In shell............do....	12,135,000	148,624	3,552,800	56,394	1,082,400	23,436
Kernels............do....			10,278,800	327,216	11,477,200	462,219
Hair, human............do....	....	....	300,000	75,898	190,400	41,748
Hemp............do....	22,471,000	1,316,242	70,667	6,149	2,928,533	242,019
Hides:						
Ass............do....	193,000	47,389	72,000	21,116	76,800	30,682
Buffalo............do....	3,712,000	393,949	5,587,333	630,038	2,378,000	414,201
Cow............do....	20,389,000	3,173,514	28,946,667	6,070,355	21,119,867	6,863,569
Intestines, pig............do....	6,000	3,376	410,667	91,416	123,733	56,294
Iron and mild steel:						
Rails............long tons..	....	....	10,299	411,558	661	35,881
All other............do....	....	....	3,464	172,678	12,570	856,456
Iron ore............do....	38,000	61,148	269,567	451,056	320,850	1,350,427
Iron, pig............do....	14,000	221,143	71.959	1,100,450	119,459	14,221,724
Lily flowers............pounds..	540,000	21,795	1,794,967	87,074	498,800	52,839
Oils:						
Bean............do....	1,503,000	58,438	989.600	50,936	6,432,400	593,381
Sesame seed............do....	6,078,000	268,638	288,133	15,043	3,198,800	289,076
Wood and nut............do....	56,654,000	2,313,466	99,809,733	4,678.424	82,772,933	9,295,050
Tea............do....	2,694,000	129,103	895,733	55,081	1,636,267	148,864
Quicksilver............do....	47,000	22,180	43,333	....	379,733	662,806
Ramie............do....	....	....	25,103,333	2,040,790	25,043,333	2,787,595
Seeds:						
Rape............do....	14,822,000	132,360	118,933	2,155	18,844,133	414,801
Sesame............do....	82,355.000	1,754.192	185,392.400	6,079,561	18,381,467	768,065
Seed cake............do....	19,139,000	81,700	26,450,400	156,488	26,648,533	306,477
Silk cocoons, refuse, and waste............pounds..	3,193,000	528,650	656.533	118,729	2,796,800	747,316
Silk:						
Honan pongee............do....	112,000	172,113	543,867	1,037.872	466,133	1,100,519
Raw, yellow............do....	1,168,000	2,631,050	915,833	998,536	890,133	2,247,338
Silk products not otherwise classified............pounds..	444,000	831,956	....	298,639	68,800	127,082
Skins:						
Kid and goat............pieces..	3,109,000	1,309,866	2,057,925	1,039,292	2,933,709	2,819,188
Sheep............do....	104,000	67,081	100,139	55,926	150,364	223,433
Tallow:						
Animal............pounds..	2,389,000	118,081	7,180,133	452,082	6,846,533	776,490
Vegetable............do....	25,828,000	1,392.190	33,216,267	1,914.653	29,552,667	3,685,566
Tea............do....	120,767,000	9,868,058	117,762,267	11,977,349	55,789,200	6,477,113
Tin............do....	13,000	2,523	210.533	32,309	589,200	33,298
Tobacco............do....	21,389,000	1,171,323	23,047,867	2,897,504	19,727,734	2,588,630
Walnuts............do....	1,400,000	51,449	873,600	34,193	1,513,733	88,406
Wheat............do....	59,097,000	566,394	28,228,000	419,007	312,845,200	5,718,421
Wool, sheep's............do....	4,062,000	408,241	268,000	15,021	1,524,400	240,183
All other articles............	....	20,390,841	....	9,696,294	....	19,155,364
Total............	....	61,840,653	....	68,886,689	....	138,338,432

It will be observed from the above table that the chief articles of export from Hankow during 1918, in the order of their relative value, were: Cotton, raw, $35,111,665; iron, pig, $14,221,724; oil, wood and nut, $9,295,050; hides, cow, $6,863,569; tea, $6,477,113; wheat, $5,718,421; tallow, vegetable, $3,685,566; skins, kid and goat, $2,819,188; ramie, $2,787,595; beans, $2,367,601; bristles, $2,323,465; silk, raw, yellow, $2,247,338; egg yolk, dried, $2,246,582; bean cake, $1,998,589; albumen, dried, $1,922,922; cigarettes, $1,411,659; tobacco, prepared, $1,401,799; iron ore, $1,350,427; albumen, liquid, $1,264,100; tobacco, leaf, $1,186,831; silk, Honan pongee, $1,100,519; gallnuts, $1,087,764.

Very little green tea is exported from this consular district, but four-fifths of China's total export of black tea is originally from

Hankow and Kiukiang, while nine-tenths of the brick tea is from this district. The antimony appearing in the above statement does not originate entirely in this consular district, as the greater part is from Hunan. Wood oil is derived chiefly from Hupeh, though small quantities originate in the Province of Szechwan, and the same is true in regard to bristles.

The following table covers the principal articles in this consular district, and the heading to each column explains the data:

Articles.	Period of market.	Date for report from consulate general reviewing trade.
Tea, black	May 15-October or later	Preliminary July, final January.
Cotton	October-April	July following.
Sesame seed	September-February	March.
Wood oil	October	Annual report.
Tallow:		
Vegetable	November-March	September-October.
Animal	do	Do.
Hides:		
Winter	November-May	October.
Summer	May-October	Do.
Goatskins	November-May	Annual report.
Bristles	All year	Do.
Gallnuts	June-June	Do.

Tea is exported to Russian Asia, Hongkong, European Russia, Great Britain, and the United States in the order named. This trade is largely in the hands of Russians. Of the raw cotton, about 66 per cent is taken by Japanese and 12 per cent by the United States, though prior to the European war Germany was a purchaser. Before the war Germany bought one-third of the sesame seeds and the Netherlands as much, but now Great Britain and Italy are the largest purchasers, in about equal quantities, followed by Denmark, Japan, and France. The United States purchases three-fourths of the wood-oil output. Animal tallow is sold to Japan, Russia, and France, in the order named, while vegetable tallow goes to Great Britain, the United States, and Italy, which take about one-third, one-fourth, and one-sixth, respectively. The shipments to the United States have trebled since the outbreak of the war. Before 1914 cow and buffalo hides went to France, Germany, Hongkong, Italy, and Belgium, but in 1915 one-third went to the United States and the next largest purchasers were Japan, Italy, and Hongkong. The United States has long been the largest buyer of goatskins, and it continues to take two-thirds; Germany and Belgium, however, have disappeared as buyers and Great Britain took only two-thirds as many in 1915 as it purchased two years before. Germany, the Netherlands, and Belgium formerly used in their tanneries and dye houses two-thirds of the gallnuts, but this article now goes to the United States and Japan in greatly increased quantities, while the first three countries have disappeared from the customs returns.

The following table shows, by quantity and value, the articles declared at the Hankow consulate general for exportation to the United States during the calendar years 1917 and 1918:

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value.
Antimony:				
Crude ... tons	1,470	$247,653	830	$117,729
Regulus ... do	1,940	589,836	375	89,066
Sulphate ... do	300	51,955		
Bones, animal ... pounds	1,146,230	58,474	1,344	1,080
Bristles ... do	507,019	540,396	654,408	882,599
Camphor, crude ... do	2,299	1,290		
Carbonate of potash, calcined ... do			32,487	8,843
Casings:				
Goat ... do	127	83		
Pig ... do	46,936	19,793	69,979	36,799
Cotton belting		211		1,974
Cotton, raw ... pounds	2,682,763	722,102	2,771,391	607,452
Egg products:				
Albumen, dry ... do	595,600	535,098	239,000	222,567
Eggs, whole—				
Dry ... do	859,518	331,133		
Frozen ... do	83,120	6,998		
Yolk—				
Dry ... do	4,402,045	1,788,838	2,747,650	1,443,960
Liquid ... do	6,460	778		
Embroidery		200		505
Fiber:				
Hemp ... tons	121	32,642		
Jute ... pounds	18,365	1,560		
Ramie ... do	2,337,489	175,420	418,830	73,455
Gallnuts ... do	2,891,662	603,825	1,298,683	587,421
Gallnut extract ... do	33,600	16,115		
Glue ... do	9,595	1,385		
Hair, human ... do	10,055	3,952		
Hides:				
Buffalo ... pieces	61,611	453,722	7,934	90,888
Cow ... do	1,143,898	7,150,546	76,175	408,616
Intestines, pig ... pounds	27,732	10,101		
Oils:				
Bean ... gallons	312,399	279,437	716,092	904,575
Cottonseed ... pounds	1,135,451	126,508	1,971,042	314,826
Rapeseed ... do	37,809	6,652		
Sesame seed ... do	7,278	938	252,788	82,741
Tea seed ... do			362,346	72,454
Wood and nut ... gallons	5,395,363	4,661,559	4,533,613	6,495,322
Ore, tungsten		11,850		16,407
Peas, white ... pounds	874,328	80,580	541,344	27,994
Personal effects		1,310		2,000
Pork:				
Tenderloin ... pounds	21,252	2,099		
Trimmings ... do	40,100	1,975		
Seeds, sesame ... do	967,200	74,369	538,812	46,495
Skins:				
Deer ... pieces	25,461	29,470	14,076	16,001
Fox ... do	25	718		
Goat ... do	1,659,868	2,646,565	1,561,647	1,939,342
Leopard ... do	27	737		
Otter ... do	2	38		
Sheep ... do	4,442	6,088	3,027	2,847
Squirrel ... do	2	6		
Tiger ... do	15	1,599	1	185
Tallow:				
Animal ... pounds	1,262,739	202,848	201,983	33,182
Vegetable ... do	10,551,833	1,404,896	8,491,642	1,339,693
Tea ... do	1,648,298	418,072	237,887	70,206
Tin ... do	20,426	12,965		
Tobacco leaf ... do			1,730,625	565,328
Turmeric ... do	16,933	830		
Wool, sheep ... do	179,037	52,991	3,324	913
All other articles		677		
Total		23,369,883		16,508,465

During the first six months of 1919 the direct exports from Hankow to the United States totaled $10,393,860.

In order to afford a basis of comparison with prewar conditions, the following table is given, showing the value of the declared exports from Hankow to the United States during 1913, the last normal year before the outbreak of hostilities:

Articles.	Value, 1913.	Articles.	Value, 1913.	Articles.	Value, 1913.
Albumen	$30,060	Feathers	$8,091	Sesame seed	$1,111
Antimony:		Gallnuts	94,350	Skins:	
Crude	60,782	Hides:		Cat	960
Regulus	105,355	Buffalo	36,026	Goat	465,472
Ore (stibnite)	2,697	Cow	1,425,317	Weasel	1,104
Bristles	156,937	Iron, pig	57,787	Tallow, vegetable	167,033
China grass	12,320	Oil:		Tea	288,774
Coal, anthracite	5,251	Cottonseed	7,619	All other articles	4,986
Cotton	1,031	Tea seed	358		
Egg yolk, frozen	10,353	Wood and nut	2,208,024	Total	5,151,798

IMPORT TRADE.

The net total import trade in 1904 was $26,376,773, in 1913 $39,109,308, and in 1918, $51,797,626.

This shows a gratifying increase in trade in a large variety of articles. The increase is due to internal developments in railways and manufacturing rather than any considerable change in the demands of the people. Advances have been made in the area of distribution; firms have pushed their agencies for the sale of certain products into remoter places, with the result that there is a very great increase in the demand for petroleum, sewing machines, and many articles of Japanese make, Japan having pushed its agencies farther inland than any other nation. The increased demand is due to development, extension of agencies, increased facilities for distribution, and in some degree to increased native demands. Shipping facilities are covered in the next section of this report, and the finance and credit system in previous ones. The comprador system is universal and is essential even though the foreigner is proficient in the language.

Many imports are covered by transit passes, except where the articles are sold from a local godown. Articles universally used, like kerosene, are delivered by agents and are covered by transit pass to the consumer. The local tax, known as likin, is a very great detriment to China, forming an obstacle to the development of trade; one never knows what an article will cost before it is eventually delivered to a remote point, as it must pass numerous tax stations. It is to be hoped that China, with the assistance of the foreign powers, will discontinue these imposts in the near future.

The following table shows the quantity and value of the net principal imports into Hankow for 1904, 1913, and 1918:

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Automobiles, and parts				$17,480		$46,518
Bags:						
Cotton and canvas ... number			258,528	41,640		
Gunny ... do	3,888,000	$270,126	2,651,963	231,535	2,533,732	287,191
Bedsteads ... do				28,416	1,425	25,305
Beer and porter ... dozen quarts		32,775	52,774	67,001	39,381	89,099
Belting		41,423		42,834		49,962
Bicycles				2,721		8,137
Boots and shoes, leather and canvas ... pairs	4,000	4,224	8,386	6,941	789	4,430
Bottles, empty				9,571		14,088
Brass and yellow metal ... pounds	285,000	37,823	197,866	30,617	394,133	139,183
Bridge-construction material				4,256		47,720

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Buttons.................gross..	431,000	$122,610	217,576	$69,102	131,032	$54,567
Candles and candle-making material (stearine).....pounds..	199,000	19,556	....	72,642	968,933	151,192
Caps and hats, foreign.number..	....	....	477,403	145,396	118,956	46,929
Carbon, black........pounds..	....	....	146,400	16,235	58,000	15,361
Cardamoms............do....	221,000	64,042	241,600	33,134	274,133	78,814
Carriages, cars, wagons, and parts of..................	....	1,866	....	310,489	....	251,022
Casks, empty........number..	....	51,216	....	52,100	12,497	56,404
Chests and fittings, tea.........	....	....	....	28,538	....	24,035
Cigarettes..............mille..	....	61,489	552,399	825,970	834,672	2,571,497
Cigars..................do....	....	9,591	6,805	58,918	1,511	27,039
Clocks..............number..	27,000	38,042	36,584	38,129	23,152	44,891
Clothing........................	....	12,521	....	30,220	....	....
Coal.....................tons..	85,000	321,757	143,554	531,216	86,944	1,192,828
Copper, ingots, bars, sheets, wire, etc............pounds..	14,326,000	2,330,235	14,129,467	2,399,041	4,016,800	1,269,608
Cotton goods:						
Blankets...........pieces..	21,000	6,980	26,003	11,144	35,433	34,050
Drills—						
American........do....	130,000	350,388	48,994	137,258	87	616
British..........do....	27,000	59,694	880	2,539	350	2,626
Japanese........do....	19,000	43,430	278,748	779,874	86,022	471,784
All other........do....	13,000	31,427	....	....	....	....
Dyed cottons, n. e. s. .do....	347,000	900,043	....	1,257,556	316,593	2,657,413
Flannels, plain, dyed, and printed—						
American......pieces..	34,000	91,595	30,732	75,730	325	1,554
All other........do....	13,000	31,575	5,498	13,664	35,221	197,068
Handkershiefs......dozen..	70,000	22,894	53,407	11,508	116,672	69,175
Italians, plain fast black ....pieces..	192,000	744,437	247,089	846,576	121,430	983,640
Jeans—						
American........do....	5,000	11,525	....	....	....	....
Dutch...........do....	2,000	5,905	7,600	15,412	....	....
English..........do....	42,000	84,023	219,142	468,680	16,865	90,151
Japanese........do....	....	....	1,530	4,093	215,785	1,069,048
Lawns..............do....	7,000	5,202	32,398	18,701	25,638	152,386
Sheetings, gray, plain—						
American........do....	70,000	152,490	12,630	40,406	78	457
English..........do....	69,000	165,864	50,408	152,601	2,237	16,565
Japanese........do....	4,000	7,237	9,130	23,592	45,670	254,197
Shirtings, gray, plain—						
American........do....	....	....	2,140	5,218	240	966
English..........do....	....	....	572,521	1,321,639	84,729	488,307
Japanese........do....	....	....	810	1,959	228,327	1,223,047
Shirtings, white, plain—						
American........do....	190	674	30	....	....	....
Dutch...........do....	20,000	56,421	41,017	....	4,125	24,557
English..........do....	510,000	1,414,535	595,834	....	251,513	1,758,036
Japanese........do....	....	....	850	....	45,516	323,088
T-cloths—						
English..........do....	85,000	115,594	84,130	154,021	23,312	114,892
All other........do....	2,000	3,295	....	2,800,798	30,060	100,339
Thread—						
Balls..........pounds..	....	....	6,400	2,991	36,400	28,509
Spools...........gross..	9,000	17,555	21,358	29,358	8,176	35,139
Towels.............dozen..	48,000	16,986	237,939	76,253	232,565	212,201
Velvets, velveteens, velvet cords, and corduroys ....yards..	454,000	70,229	654,143	134,766	252,464	123,949
Yarn.............pounds..	38,924,000	5,148,766	38,032,400	5,328,939	11,618,267	5,027,695
Miscellaneous cotton goods.	....	408,554	....	341,512	....	736,808
Miscellaneous piece goods.......	....	409,964	....	118,621	....	286,521
Covers, bed (including cotton quilts)..............pieces..	....	....	111,241	30,210	34,600	37,793
Crucibles.........................	....	52,165	....	48,631	....	87,693
Drapery.........................	....	....	....	....	....	54,944
Dyes, colors, etc.:						
Aniline........................	....	290,601	....	502,967	....	146,362
Indigo (all kinds).pounds..	....	....	7,336,400	1,165,492	70,000	72,944
All other.....................	....	5,987	....	54,160	....	134,854
Electrical materials and fittings.	....	13,497	....	144,001	....	313,137
Emery cloth, sandpaper, emery powder, etc.		6,394	....	2,472	....	8,096
Enameled ironware............	....	3,334	....	85,445	....	95,609
Engine and boiler fittings......	....	....	....	139,382	....	117,416
Files..........................	....	1,966	....	9,223	....	12,797
Flour.................pounds..	1,765,000	35,254	524,533	14,400	181,333	7,929
Fruits and vegetables, canned..	....	....	....	14,552	....	62,548
Garters, braces, suspenders, etc.	....	....	....	....	....	536,273
Ginseng:						
American.........pounds..	9,000	55,886	7,688	80,993	15,555	276,972
Japanese.............do....	8,000	9,029	9,673	16,256	15,264	34,562
Other.................do....	4,000	52,571	67	3,018	1,467	97,110

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Glass, window...........boxes..	17,000	$48,706	53,819	$139,790	10,609	$115,933
Gloves............dozen pairs..			28,326	8,123	64,614	40,285
Graphophones and accessories..				7,181		7,444
Haberdashery and millinery...		15,389		53,803		50,459
Hardware..........		32,451		46,169		31,861
Hats, summer and straw, number..........	2,000	255	389,289	54,781	65,520	25,407
Hosiery (including cotton socks) dozen pairs..........			31,550	8,464	354,515	322,182
Instruments:						
Musical, pianos and organs.				6,385		4,809
All other..........		24,026		28,227		
Iron and mild steel, new:						
Bars..............pounds..	1,545,000	23,092	5,213,333	87,294	4,169,600	298,088
Cobbles and wire shorts, pounds..........	1,398,000	19,357	6,872,267	93,445	732,133	27,186
Hoops............pounds..	103,000	21,950	3.647,333	79,554	3,599,333	284,369
Nails...............do....	4,843,000	93,157	8,403,200	190,209	3,291,867	260,877
Pipes and tubes, wrought, pounds..........	135,000	3,002	247,067	9,444	632,400	43,104
Plate cuttings.....pounds..	618,000	7,249	4,050,400	49,681	87,067	3,895
Rails...............do....			16,688,800	281,697	1,638,267	51,466
Screws...............do....	11,000	963	918,800	37,915	46,133	7,963
Sheets and plates....do....	898,000	14,118	2,693,467	51,574	738,533	87,292
Wire...............do....	811,000	21,595	1,152,533	29,168	304,400	24,158
All other............do....	383,000	9,478	4,430,400	117,198	2,982,800	220,920
Iron and mild steel, old..do....	2,289,000	23,107	2,612,667	28,776	1,269,867	41,915
Iron, galvanized:						
Bolts, rivets, screws, tubes, ropes, etc.......pounds..			95,200	2,092	166,933	20,225
Corrugated sheets....do....	391,000	11,461	2,064,533	65,312	135,867	30,793
Flat sheets...........do....	590,000	17,617	2,213,067	82,170	878,400	199,079
Wire...............do....	288,000	7,668	591,467	17,366	755,200	71,423
Wire shorts...........do....	661,000	8,096	3,802,800	52,342	1,019,333	52,716
Lamps and lampware..........		36,469		124,686		97,589
Lead.................pounds..	4,086,000	124,278	751,167	30,353	801,733	75,162
Leather..........		49,548		57,547		330,856
Locomotives..........				59,194		24,113
Lumber and timber:						
Hardwood......cubic feet..	177,000	52,601	182,648	44,197	78,322	43,916
Softwood......square feet..	4,306,000	89,315	20,780,124	367,518	4,036,782	173,370
Sleepers..........number..	31,000	15,378	399,450	250,512	338,984	312,686
Machine tools..........				10,125		4,211
Machinery..........		485,274		348,751		138,443
Matches, Japanese.......gross..	172,000	25,088	1,317,255	264,848	62,064	20,200
Match-making materials, pounds..........	7,363,000	110,737	4,177,067	72,433	9,122,267	401,301
Medicines, foreign and Hongkong..........		95,010		180,373		306,960
Metal, antifriction (including Babbitt, magnolia, etc., metals)................pounds..			26,800	5,744	7,067	2,957
Metal, white.............do....	78,000	19,969	77,467	22,397	5,333	6,797
Milk, condensed, in cans.dozen.	8,000	9,007	21,720	26,038	22,852	49,774
Mining requisites..........						60,978
Motor cycles, and parts of......				17,480		
Munitions..........				221,395		33,490
Needles.................mille..	716,000	103,280	1,113,850	167,742	364,326	402.042
Nickel................pounds..	90,000	35,654	83,200	29,775		
Oils:						
Kerosene—						
American.....gallons..	4,076,000	571,369	14,482,124	1,200,279	3,203,918	993,792
Borneo and Sumatra, gallons..........	10,378,000	1,213,037	10,724,403	1,190,539	4,529,388	1,336,222
Lubricating.......gallons..	51,000	12,855	285,969	66,105	449,148	168,252
Opium..............pounds..	2,037,000	124,620	215	2,812		
Paints..................do....	99,000	4,607	502,000	32.128	231,467	30,217
Paper..........		95,302		244,869		
Paper-making material, pounds..........			845,333	19,326	56,000	3,707
Pepper:						
Black............pounds..	1,291,000	137,512	1,360,533	133,728	1,727,867	316,004
White..............do....	88,000	16,550	28,533	4,364	29,733	6,677
Photographic materials..........		6,921		20,693		
Printing and lithographic materials..........		2,730		10,301		3,802
Printing ink..........pounds..			46,000	5,192	61,600	19,720
Provisions and household stores, n. e. s..........		85,447		189,098		190,890
Pumps..........				20,147		21,887
Railway plant material..........		1,480,303		54,660		215,366
Recreation requisites..........				2,459		6,556

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Rope, Manila pounds	83,000	$8,941	74,933	$6,798	88,267	$16,002
Rubber and rubber goods				16,079		5,488
Safes				13,680		14,386
Scales				5,072		7,095
Seaweeds pounds	19,849,009	323,330	15,856,533	241,862	18,580,133	461,933
Sewing and knitting machines				24,709	413	11,613
Shooks, staves, etc				382,922		338,171
Soap:						
Bar pounds	1,092,000	32,575	2,394,400	117,607	1,872,667	181,445
Fancy and toilet		25,316		66,542		147,805
Spirits (not including alcohol)		15,108		3,178		87,991
Stationery		14,505		67,215		51,499
Steel:						
Bamboo pounds	417,000	11,125	1,720,933	34,986	97,200	20,681
Bars do	146,000	6,964	344,400	8,907	238,533	27,340
Tool and cast do	194,000	59,346		17,941	493,200	89,627
Wire netting and gauze, pounds	81,000	2,656		1,021	123,467	41,959
All other pounds	274,000	18,955		7,144	129,733	12,655
Stoves and grates				19,989		9,335
Sugar pounds	36,473,000	950,919	104,530,133	2,910,628	170,172,800	10,463,277
Tar gallons			66,800	7,592	61,790	9,694
Tea:						
Dust pounds	1,717,000	182,881	20,764,000	3,029,707	1,587,867	239,996
All other do	1,000	369			7,333	1,489
Telegraphic materials		20,788		29,404		11,633
Tin pounds	389,000	90,122	290,133	43,824	25,600	12,257
Tin plates do	4,785,000	156,221	11,923,600	444,615	3,017,733	317,059
Tobacco, leaf and prepared, pounds			405,467	69,858	238,933	34,012
Tobacconists' sundries				3.494		3,536
Toilet requisites		1,428		42,790		10,575
Tooth powder and paste						32,730
Typewriters and accessories				9,725		11,478
Umbrellas, cotton, Japanese, number	344,000	97,762	500,924	143,402	555,030	276,116
Underwears dozen			3,668	16,680	18,994	97,180
Varnish		2,893		12.175		1,855
Watches number	2,000	7,832	3,357	4,398		
Water, table, bottled, dozen quarts		9,648		25,389	19,578	36,437
Wine (not including sake)		49,960		181,513		63,727
Woolen goods		521,587		309,841		147,509
Wool and cotton mixtures		111,633		86,635		185,089
Zinc pounds	224,000	14,390	2,524,600	194,631	617,200	94,476
All other articles		3,910,059		1,800.753		5,022,956
Total		26,376,773		39,109.308		51,797,026

Where an item does not appear in the above table for each year, it is because it is not in the Maritime Customs Returns for that year.

SHIPPING FACILITIES FOR TRADE WITH UNITED STATES.

Steamship companies operating out of Hankow are:

Name of company.	Between Hankow and—	Frequency of service.
China Navigation Co.	Shanghai	Five days per week.
	Ichang	Irregularly; usually weekly.
	Changsha	Tuesdays and Fridays during high-water season.
Indo-China Steam Navigation Co.	Shanghai	Three days per week.
	Ichang	Irregularly; usually weekly.
	Changsha	Weekly in season.
Hong On Steamship Co.	Shanghai	Weekly.
Ningpo-Shaohsing Steam Navigation Co.	do	Irregularly.
Nippon Kisen Kaisha	do	Six days per week.
	Ichang	Two days per week.
	Changsha	Two days per week in season.
China Merchants Steam Navigation Co.	Shanghai	Four days per week.
	Ichang	One day per week.

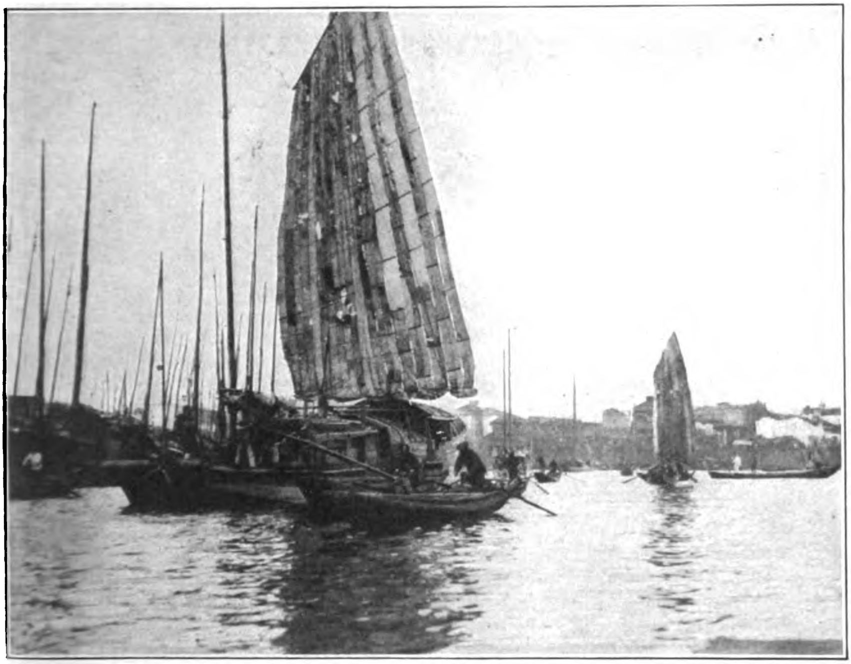


FIG. 13.—CHINESE JUNK ON THE HAN RIVER, HANKOW.

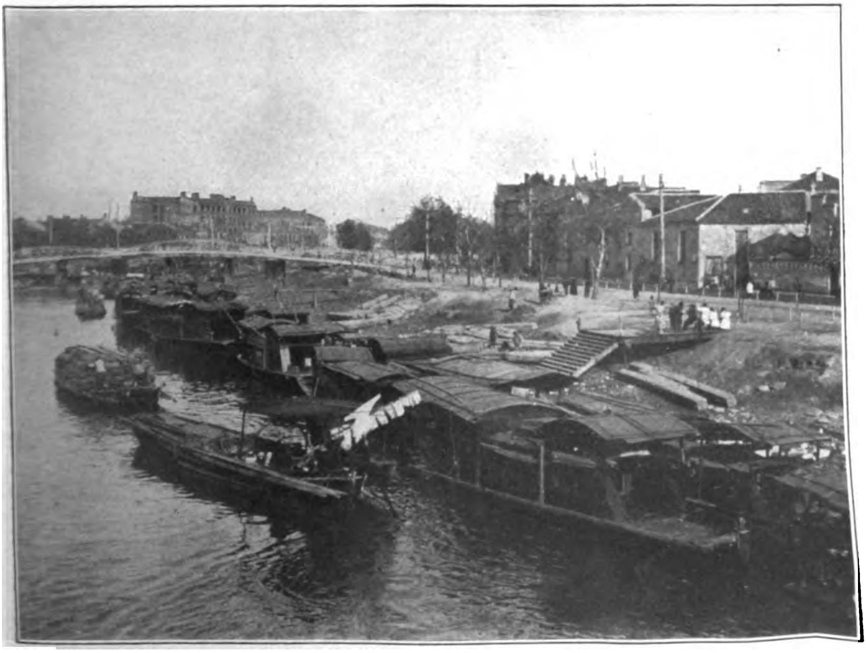
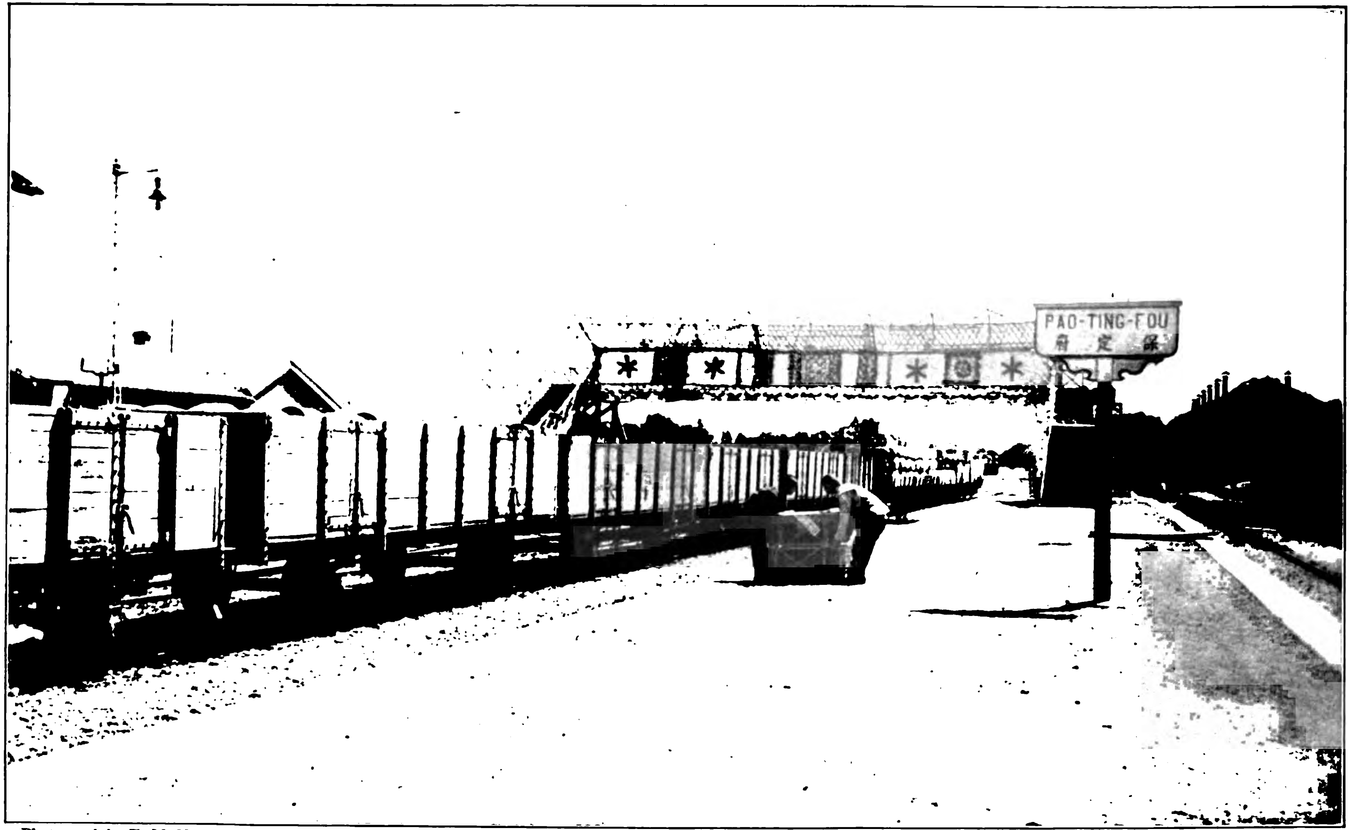


FIG. 14.—PART OF THE FLOATING POPULATION ON SOOCHOW CREEK, SHANGHAI.



Photograph by E. M. Newman.

FIG. 15.—FREIGHT TRAIN ON PEKING-HANKOW RAILWAY.

Tow boats with lighters from Hankow to Changteh are maintained during high water when freight offers.

The European war has not materially affected the river service. It has reduced the steamers of British companies, but the Japanese steamers have provided increased service.

There are no express companies located in Hankow. All shipping firms act as forwarding agents.

There are no mechanical appliances on the wharves for handling cargo. If such equipment is indispensable the vessel must provide it, but the useful coolie is capable of handling surprisingly heavy weights. It is not an uncommon thing to see heavy pieces of machinery, boilers, etc., discharged by the coolies; the work is not expeditiously done, but the coolies accomplish it in some inexplicable manner. The port charges upon vessels, such as harbor dues, etc., are included in the tonnage dues, which are payable once every four months, entitling a vessel to call at any port in China without payment of further dues. The tonnage dues on vessels up to 160 tons are 1 mace per ton, and if over this, 4 mace per ton.

Ocean-going vessels come to Hankow during nine months in the year, but this service is irregular and is per arrangement. Among the vessels arriving from America are those belonging to the Standard Oil Co. of New York, the Robert Dollar Co., and the Garland Steamship Co.

FACILITIES FOR TRAVEL.

The river steamers furnish admirable facilities for travel on the Yangtze. The railways, where they exist, furnish fair accommodations; elsewhere chairs must be used.

Except in Hankow, Kiukiang, and Kuling, there are only native hotels or inns. The following are the European hotels at the places indicated:

Name.	Number of bedrooms.	Number of baths.	Rate per day.
			Mex. dol.
Wagon Lits Terminus Hotel, Hankow	60	30	7
Hankow Hotel, Hankow	14	5	4
International Boarding House, Hankow	5	2	4
Duff Hotel, Kiukiang	....	....	4
Fairy Glen, Kuling	....	Over 40	6

Four lines of steamers maintain a splendid river service between Hankow and Shanghai (70 hours), and practically every night one or more steamers sail. The fare down the river is $50 Mex., while that for the return trip is $75 Mex. The year round small steamers ply weekly from Hankow to Ichang (90 hours), the fare being $45 Mex. During high water—approximately nine months per annum—service is maintained to Changsha (48 hours), the fare being $30 Mex. There is daily railway service to Peking, the fare, with sleeper, being $49.50 Mex.

The best season to visit Hankow as a tourist would be the autumn or spring, avoiding the extreme heat from June to September and the inclement winter season. If the trip is for business it should be at the season when the exports are in market or during any time except from June to September.

TRADE ORGANIZATIONS IN DISTRICT.

The following trade organizations exist in the Wuhan cities, and it may be stated that in practically every recognized center of trade there is a Chinese chamber of commerce in addition to those here indicated as existing in Hankow:

British Hankow Chamber of Commerce, C. A. Fraser, chairman.

Hankow General Chamber of Commerce (Chinese), Yu Ching Tsen, chairman.

Wuchang Chamber of Commerce (Chinese).

The Chinese guilds embrace the following organizations, industries, and activities: Banks; financiers; native banks (opened by Hankow natives); Shao-hsing banks; Kiangsi banks; Anhwei banks; foreign companies; mines and mining companies; insurance companies; metals; tea industry; tea-leaf shops; Changsha paper, tea, and grocery shops; Hui salt; oil shops; yellow-silk and wood-oil shops; kerosene oil; pawn shops; clothing industry; silks; piece goods; native cotton cloth (Kingkow and Yokow); cotton yarn; cotton shops; cotton purchasing and selling agents; silk industry; white cotton cloth shops; grass-cloth and hemp shops; native velvet; Canton and Chaochow; Szechwan; Taiping; Fukien; Kiangsi agents; Kien-chang, Kiangsi; Fuchow, Kiangsi; Tang Hui (drugs); Huangchow; Chun Hsu; old silversmith shops (Chekiang); new silversmith shops (Chekiang); native silversmith shops; Inner River cereal shops; Outer River cereal shops; Chekiang-Ningpo cereal shops; native cereal shops; marine delicacies; Canton and Fukien grocery shops; Hsien-ning grocery shops; Hanyang grocery shops; Kiangsu groceries and sweetmeats; rice grinders; Shao-hsing wine; Fun wine; bean cakes; ginseng and birds' nests; drug stores (wholesale); drug stores (retail); Chekiang-Ningpo drugs; Ling Kiang oil, wax, and drugs; China root firms; prepared drugs; gypsum; foreign dispensaries; tobacco-leaf firms; foreign tobacco; Chunchow tobacco leaf; sundry products (at Pan Pien Street); sundry products (at Too Tong); sundry products (Ho Kai); sundry products (Middle Section); Hanchuan sundry products stores; hides, cow or buffalo; northwestern Shansi skins; skins of all sorts, Shansi; cocoons and ass skins; skins for manufacturing pens; bristles; feathers; foreign and Cantonese goods; caps and hats (Kiangsu-made); boots and shoes (Kiangsu-made); transportation companies; shipping offices; Kiangsu and Chekiang contractors; lumber trade; lime trade; varnish and paints; porcelain; brass goods; tissue paper (cotton); book stores and stationery; Anhwei ink tablets; umbrellas; gunny sacks; Che-Shao clothing; Fu Hu cloth (cotton); dealers in beef (butchers); eggs; blue dyers; fruits; garden crops; household woodenware; Liuyang firecrackers; independent enterprises.

AMERICAN INTERESTS.

The pioneers for the United States in the Hankow consular district were the missionaries and some shipping. The American shipping, however, has disappeared entirely from the Yangtze. The existing American interests were a gradual growth prior to the European war, and consequently were not phenomenal. Their development was principally confined to the extension of the trade of one firm—the Standard Oil Co.

MISSIONARY INTERESTS.

The mission work of the churches of America occupies a preeminent place in this consular district. In the Province of Hupeh the American Church Mission, the official representative of the Protestant Episcopal Church in the United States, has an extensive educational system for both boys and girls, while in the Province of Kiangsi the same may be said for the American Methodist Episcopal Mission. The American Lutherans have a very large work in the Province of Honan and, in addition, assist in the maintenance of two theological training schools in Hupeh—one in conjunction with the Swedish missions at Kingchow and the other near Hankow, in connection with the Norwegian and Finnish missions. The Christian and Missionary Alliance carries on a highly commendable work in the Province of Kansu, on the borders of Tibet. In Shensi, the principal mission work is carried on by Americans of Swedish extraction in connection with the China Inland Mission. The outline sketch given below will show clearly the extent of the work carried on by the various missions.

KIANGSI PROVINCE.

The American Methodist Episcopal Mission carries on evangelistic, medical, and educational work. In Kiukiang there are the William Nast College, with four American professors; the Rulison High School for Girls, with four American teachers; the Knowles Bible Training School for Women, with three American teachers; and a hospital. In Nanchang there are three Americans in general work and a hospital with one American.

The American Church Mission has two Americans at Kiukiang and two Americans at Nanchang.

In the China Inland Mission there are six Americans.

The American Bible Society at Kiukiang has one American.

The Y. M. C. A. at Nanchang has one American.

The American mission interest in the eastern part of the Province is considerable, but no details are available.

HUPEH PROVINCE.

The American Church Mission's work in Hupeh is of supreme importance. At Wuchang there are under its auspices Boone University, with seven Americans and three Britishers; St. Hilda's Girls' School, with four Americans; and a hospital, in which there are three Americans and two Britishers in the men's department and two Americans in the women's department. At Hankow it maintains a training school for women with four Americans. It also conducts evangelistic and school work in Hankow, Wuchang, Shasi, and Ichang, in which 20 Americans are engaged. The baptized Christians number 5,550. It has 15 boarding schools, with 1,206 pupils. The day school has 2,287 pupils.

The Lutheran Missions engage two Americans in their theological seminary at Kingchow.

At Hankow is the American Bible Society, with one Britisher, and the Seventh Day Adventist Mission, with four Americans. The Pittsburgh Bible Institute, at Shihnan, has three Americans, while the Christian and Missionary Alliance, at Wuchang and Hankow, has seven.

KANSU PROVINCE.

The Christian and Missionary Alliance maintains stations at Titao, Minhsien, Chone, and Taochow, having 11 Americans.

SHENSI PROVINCE.

The Scandinavian Alliance Mission has stations at Sianfu, Yinkiahwei, Hingping, Sangkiachwang, Wukung, Lichuan, Kienchow, and Pinchow, having 58 Americans under its direction. The work carried on in this Province is excellent and second to none, though the China Inland Mission has done excellent work there.

HONAN PROVINCE.

The American Lutheran Mission in its field in southern Honan has headquarters at Sinyang. This work began in 1898. Forty-seven missionaries are engaged, of whom 32 are American citizens. The mission maintains 6 central stations, 47 outstations, 65 native workers, 1 hospital providing work for 4 doctors (3 Americans and 1 native), 6 deaconesses, 1 trained nurse, 1 male nurse, 14 foreign pastors, 14 foreign evangelistic workers, and 5 American teachers in two middle schools. It has 1,500 church members, and has an annual budget of about $50,000 United States currency.

The Augustana Synod Mission began work in 1906 with 28 American workers, of whom 8 are ordained men, 8 missionaries' wives, 2 doctors, and 2 nurses. They have 6 stations and one middle school. The field is Hsuchow, Honanfu, Juchow, Paofeng, Kiahsien, and Yuchow.

The Lutheran Board of Missions has recently begun work with four American workers—two ordained, one a teacher and nurse, and one a wife. The first worker arrived in 1914. The field of labor is Kweiteh.

The Lutheran Brethren Mission has taken the field of Tsaoyang, Hupeh, and Tungpeh, Honan. Work was begun in 1902. It has three stations and one girls' middle school, with 80 pupils.

For the Lutheran Synod Mission the first worker arrived in 1912. The field is Kwangchow, Kwangshan, and Hsihsien. There are nine American missionaries, of whom three are ordained, three wives, one a woman nurse, and two teachers. The number of Christians is approximately 250. This mission plans strong medical work and schools.

The Hauges Synod Mission began work in 1891 in the field of Fanchang, Hupeh. It has 4 head stations, 16 congregations, 30 other outstations and preaching places, 3,500 Christians, and two middle schools—one for boys and one for girls, with 85 students in each. The mission does union medical work with the Swedish-American Missionary Covenant, with one American doctor, one Chinese doctor, one foreign nurse, and two Chinese. It conducts union work in a theological seminary at Shekow with the American Lutheran Mission, the Finnish Missionary Society, and the Norwegian Missionary Society. Ten men from the Hauges Synod Mission graduated from the seminary in 1916. Union work with the American Lutheran Mission, the Augustana Synod Mission, and the Lutheran Synod Mission for the establishing of a school for missionaries' children is also being carried on at Kikungshan, where a large building has recently been completed. Each of the united missions will furnish one worker for this institution, whether as teacher or as matron. At present the school has two American teachers, one from the Hauges Synod Mission and one from the American Lutheran Mission, counted under these missions' teachers. Seventeen members of this mission are Americans, of whom 1 is a doctor, 4 do educational work, and 12 are engaged in evangelistic work.

A Lutheran minister and his sister are working in Tanghsien, Honan, having begun in 1915.

The Evangelical Lutheran Mission Society for China began work in 1913, with two missionaries and their wives. Its field is Hankow.

The Swedish-American Missionary Covenant has selected the field of Siangyang, Fancheng, Kingmen, and Kingchow, Hupeh. The first worker of this mission arrived in China in 1890. It has 13 congregations and 29 other outstations and preaching places. This mission carries on union work with the Hauges Synod Mission in the hospital above mentioned and supplies two doctors—one American and one Chinese—and two American nurses to the medical staff. It cooperates with the same mission in its girls' middle school, furnishing one American woman teacher and bearing its share in the running expenses of the school. It cooperates with the Swedish Covenant Mission from Sweden in the Kingchow Seminary, furnishing two American professors for this institution.

FINANCIAL AND COMMERCIAL INTERESTS.

The nonmissionary American interests in the Hankow district are those incident to the Hukuang Railway Loan, including the supplies to the Canton-Hankow section. The furnishing of those supplies was made possible by the European War, which precluded substantial competition; this condition enabled American firms to procure contracts for articles not usually made in America in acceptable designs.

There are two American banks maintaining local branches in Hankow. The International Banking Corporation has been established there for a great many years, and, since acquisition by the National City Bank of controlling interest in it, it has become a very important factor in the interchange of trade between Hankow and the United States. It plans to provide new facilities, including the acquisition of its own building site on one of the most prominent lots in the British Concession. The new building will give the bank prestige with the Chinese, and it is expected that this institution will take its place well up among the foreign banks.

The Asia Banking Corporation was opened in Hankow in February, 1919, with the support of a number of prominent American mother institutions such as the Guaranty Trust Co. and the Anglo and London–Paris National Bank. It promises to become a great factor in the development of American trade between China and the United States. This institution is said to have relations that will enable it to become a very important foreign bank in Hankow.

Commercially, America is now well represented by local branches for the importation of timber, certain more essential lines of machinery and railway supplies, and electrical equipment. For handling exports American concerns have branches particularly well situated for buying wood oil, hides, and skins, but for other articles Americans must depend to a large extent upon firms of other nationalities.

Americans other than missionaries own at the port of Hankow real estate to the estimated value of a million gold dollars.

American interests fall far short of what they should be. They are exceeded in all nonmissionary particulars by those of Japan, Great Britain, Germany, Russia, and France. American trade interests have increased since the beginning of the war—more because of Chinese necessity than American efforts. Never has a nation had offered to it such rich opportunities to extend its commercial interests practically without competition, but Americans have apparently failed to realize the importance of energetic action.

The most promising fields for American activity are difficult to state, because there are so many. Among them would certainly be building or advancing loans (conditioned upon purchase of American or Chinese equipment) to build railways, highways, cold-storage plants, electrical plants, flour mills, cotton mills, paper mills, and mining enterprises, provided adequate protection could be guaranteed. Hankow being most important for exports, the establishment of a branch there to buy any of the raw products mentioned in other parts of this report is very desirable and would prove to be profitable.

GENERAL TRADE SUGGESTIONS.

General trade suggestions have largely been embodied in previous sections of this report, but to American exporters who desire China trade it is suggested that the principal office be established at some desirable point, usually Shanghai, and that, if the demand is sufficient to justify it, the Hankow consular district should be covered by a branch house with an American manager; if not, a traveling representative should cover the field at stated periods. None but Americans should be in command of the firms intending to conduct the sale of American merchandise. In order to maintain any trade after the war this will be imperative.

Americans intending to import from China should have head offices in Hankow for any or all products exported, with the exception of the single item of soya beans and their by-products.

HONGKONG CONSULAR DISTRICT.

By Consul General George E. Anderson.

LOCATION AND AREA.

Hongkong is a British Crown Colony and was ceded to Great Britain by the Chinese Government in 1841. By the conventions of 1860 and 1898, further territory was ceded by China; this concession is for a period of 99 years. The island of Hongkong is situated off the coast of Kwangtung Province, near the mouth of the Canton River. It is distant about 40 miles from Macao, a Portuguese possession, the oldest European settlement in China, and 90 miles from Canton. It lies between 22° 9′ and 22° 17′ north latitude and 114° 5′ and 114° 18′ east longitude. It is distant in statute miles: From Manila, 720; from New York, via Panama, 12,984; from San Francisco, 7,877; from London, via Suez, 10,894; from London, via the Cape, 14,645; from Shanghai, 931; from Yokohama, 1,755; from Sydney, 4,950; from Port Said, 7,240; from Panama, 10,765; from Marseille, 8,651; from Seattle, 8,302; from Calcutta, 3,453.

The island of Hongkong, 28 square miles in extent, is about 11 miles long and from 2 to 5 miles broad; its circumference is 27 miles. Kowloon, consisting of 4 square miles, was ceded by China in 1860; and the New Territories, consisting of 286 square miles on the mainland and the islands of Lantao, Lamma, Chingchow, and others, totaling approximately 90 square miles, were ceded by China to Great Britain in 1899. The island of Hongkong is not more than half a mile distant from the mainland, the narrowest point being at Lyeemun Pass.

POPULATION.

According to the census of 1911 the population of Hongkong, British Kowloon, and the New Territories was 455,283, including 55,157 floating population. The population per square mile was 977. The population was divided as follows: Europeans and Americans, 5,185; Portuguese, Indians, and other non-Chinese, 6,040; Chinese, 383,716. The population of the colony of Hongkong at the end of 1918 was estimated to be about 468,100. The fluctuation is always very large, owing to various causes, the chief one being the continued state of unrest in Canton and large cities in the Canton delta. The city of Victoria has about 280,000 people, while the inhabitants of the colony of Hongkong and its dependencies number more than 500,000. The area of the colony of Hongkong is 316 square miles, or exactly the area of New York City.

PHYSICAL FEATURES.

The island of Hongkong consists of a broken ridge of lofty hills, the highest, Victoria Peak, being approximately 1,800 feet in height. There are few valleys of any extent and scarcely any ground for cultivation. The New Territories are made up chiefly of mountain ranges (the highest peak being more than 3,000 feet in height). In general, the hills and mountains are bare and the soil is poor.

CLIMATE.

In former days Hongkong enjoyed a most unenviable notoriety for unhealthfulness, but the influence of tree planting (particularly pine forests) and the elaborate system of nullahs and other sanitary improvements has made Hongkong one of the most healthful places that can be found in the corresponding latitude. The general death rate per 1,000 in 1914 was 12.99 for the non-Chinese community and 23.88 for the Chinese community. The rise in the general death rate from 21.16 per 1,000 in 1913 to 23.34 in 1914 was due to the epidemic of bubonic plague, which accounted for no fewer than 2,020 deaths. The mean temperature for the year is about 71°. The average highest temperature is about 92°. The average lowest temperature is not much below 36°. The average rainfall is about 85 inches for the year. The last typhoon of any importance visited the colony in 1909. In 1913 the Hongkong Observatory recorded the tracks of 14 typhoons during the year. These typhoons generally pass either south or north of the colony, but the effect on the local weather conditions is usually very marked. The Hongkong Observatory issues daily charts of the weather, which are obtained from meteorological observations from 40 stations in China, Indo-China, Japan, and the Philippines, and a daily forecast is also issued for Hongkong and the district and Formosa channel, and points south. The American consulate general receives from the Manila Observatory typhoon warnings, which are distributed to the shipping companies, government officials, and clubs.

POLITICAL ORGANIZATION.

The colony of Hongkong is administered by a governor, aided by an executive council consisting of five officials and two unofficial members. The legislative council is presided over by the governor and is composed of the officer commanding the troops, the colonial secretary, the attorney general, the treasurer, the secretary for Chinese affairs, the director of public works, the harbor master, the captain superintendent of police, and six unofficial members, one of whom is elected by the Hongkong Chamber of Commerce and the other by the justices of peace. The other four, two of whom are Chinese, but British subjects, are appointed by the governor. Foreign consuls deal only officially with the colonial secretary. Unofficially foreign representatives have dealings with the secretary for Chinese affairs (who is also registrar general), the harbor master, and the captain superintendent of police. In commercial matters, as between merchants and the government, the Hongkong Chamber of Commerce usually acts as the intermediary.

EDUCATION.

From the first days of the cession of Hongkong to Great Britain the religious and educational needs of the colony have always been uppermost in the minds of the administrators and laymen, and in the early days the government accepted the part of proselytizer and began at once the establishment of a grant school.[1] The educational conditions in Hongkong have been peculiar, on account of the physical features of the land and the complexity of the population. There are two natural divisions from an educational point of view—the urban and the rural. The urban division is the densely populated city of Victoria, including representatives of practically all nations of the world, the enormous majority, however, being Chinese. The importance of this urban division is out of all proportion to its area, since it comprises a population of 280,000. The rural division comprises the rest of the colony, and is a problem in itself. Its inhabitants are poor, primitive in their ways of living, and extremely hard to reach in an educational way.

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[1] By a "grant school" is meant a school conducted by a missionary society but receiving financial aid from the government and subject to government inspection.

During the period from 1901 to 1910 the educational system may be said to have more or less established itself. In 1911 the Hongkong University was opened and from this dates the most progressive period in the history of education in the colony. In 1913 the education ordinance was passed requiring compulsory inspection of schools. There has been a general tendency to develop government rather than grant schools and to encourage the upper-grade rather than the lower-grade schools. The government schools are 15 in number, and most of the education of the English and Indian children of the colony, as well as a great part of the education in English of the wealthier Chinese, is undertaken by government schools. The system can be conveniently classified as follows: Government schools, military schools, private schools, grant schools, controlled private schools, and the technical institute. The total number of pupils attending these schools is 19,431, according to a recent report of the director of education. The total net expenditure on education by the government is approximately $100,000 gold. The more important secondary schools in the colony are Queen's College, St. Joseph's, Ellis Kadoorie, St. Paul's, St. Stephen's, Belillos Public School, the Peak School, and Kowloon British School, for European scholars, and a number of convent schools. The Hongkong University is incorporated by a local ordinance. It has accommodations for 500 undergraduates. There are 11 classrooms and 8 laboratories and workshops. The university has three faculties, those of engineering, medicine, and arts. The present teaching staff consists of a professor of engineering, with six lecturers, a professor of English and history, with one lecturer, a professor of economics, with one lecturer, and professors of mathematics, physiology, and anatomy. A lecturer in law is to be appointed. There are also nine part-time lecturers, mostly in medicine. The number of undergraduates is 230. Already the usefulness of the university has been proved by the number of graduates in engineering and medicine, who, in general, have entered into the civic life of China, thereby fulfilling the very purpose the founders had in mind.

The faculty of medicine in the Hongkong University represents the only school of medicine in the colony.

The hospitals are as follows: Alice Memorial Hospital; Alice Memorial Maternity Hospital; Government Civil Hospital, and the lunatic asylum connected therewith; Hildesheim Mission Blind Asylum (Kowloon); Ho Miu Ling and Tung Wah Hospitals; Matilda Hospital; Nethersole Hospital; Victoria Hospital; Peak Hospital; and military and naval hospitals.

Foreign missionary institutions are: Berlin Foundling House; Church Missionary Society; Dominican Missions in the Far East; London Mission; Pentecostal Mission; Procure des Missions Etrangères; Young Men's Christian Association of Hongkong, Chinese and European.

The use of modern school supplies has not been carried to the same high standard as in the United States. The supplies are usually imported from Great Britain or manufactured locally according to English ideas and specifications.

AGRICULTURE.

There is practically no agricultural district in the colony of Hongkong, including the New Territories. The land is not suitable for tillage, and nothing is grown but a little rice and some vegetables near the outlying villages. In the New Territories, especially, the Government is paying considerable attention to the planting of trees. The island of Hongkong is well covered with trees, but at present they are without commercial value.

MINERALS AND MINING.

Tin has been found in the New Territories, but apparently not in paying quantities, as no attempt has been made recently toward developing the mines. There are large granite quarries on both the island and the mainland. A great amount of this stone is of the finest character, suitable for the best kinds of structural work, while the remainder is found in varying states of decomposition, generally much iron-stained, and is only suitable for road making. No machinery is used in connection with the quarrying and finishing of granite, and it is doubtful whether it could be employed with profit and advantage. Lead mines are being worked in a small way.

RAILWAYS.

The Kowloon-Canton Railway was formally opened for through traffic in October, 1911, the British section being opened practically a year before the Chinese section was ready. The British section was constructed by the Hongkong government and extends from Kowloon to Samchun, a distance of about 22 miles. The Chinese section was constructed by the Chinese Government by money loaned by the Hongkong government; it extends from the border of the British territory at Samchun to Canton, a distance of 89 miles. The first survey of the line was commenced in 1905 and completed about a year later. The British section includes in its 22 miles five tunnels and 49 bridges. The ruling gradient is 1 in 100; the gauge is 4 feet 8½ inches; the rails are 85 pounds; there are sleepers of Australian hardwood, 2,000 to the mile. The Chinese section is of the same gauge, rails, and standards. The ruling gradient is 1 in 150. The British section has been constructed through mountains, and tunnels are its feature; the Chinese section has been constructed on much less difficult ground, and bridges are its feature. The British section cost $12,296,929 Hongkong currency,[1] or approximately $6,200,000 gold, and the Chinese section cost $15,500,000 Hongkong currency, or $7,750,000 gold. The British section cost for construction approximately $246,000 gold per mile and the Chinese section about $73,150 gold per mile.

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[1] See footnote on p. 84.

The rolling stock on the British section is as follows:

(1) *Main line (British section, 22.24 miles; Chinese section, 88.73 miles)*.—Locomotives (4-foot 8½-inch gauge)—Kitson, 89 tons 15 hundredweight, 8; Hudswell Clarke, 29 tons 7 hundredweight, 2; locomotive crane, 15 tons, 1; total, 11. Coaching vehicles (4-foot 8½-inch gauge)—first-class saloon coach, 1; first-class dining car, 1; first-class carriage, 1; second-class carriages, 2; first and second class composite carriages, 3; first and second class composite carriage and buffet, 1; third-class carriages, 13; third-class luggage and brake, 3; kitchen luggage and brake, 1; total, 26. Goods vehicles (4-foot 8½-inch gauge)—30-ton covered goods cars, 5; 30-ton rail bogie cars, 2; 30-ton open goods cars, 5; 15-ton covered goods cars, 24; 15-ton cattle trucks, 2; 15-ton open goods cars, 10; 15-ton goods brake vans, 2; total, 50.

(2) *Fanling-Shatowkok branch line (7½ miles)*.—Locomotives (2-foot gauge)—Hudswell Clarke, 5 tons 3 hundredweight, 2; 10 tons, 1; total, 3. Coaching vehicles (2-foot gauge)—first-class carriage, 1; first-class and brake composite, 1; third-class and brake composite, 1; third-class carriages, 3; total, 6. Goods vehicles (2-foot gauge)—Steel-sided goods wagons (60 cubic-foot capacity), 3.

Particulars of the traffic during a recent year are given in the following table:

MAIN LINE (THROUGH).

Passengers.			Goods.		
Classes.	British section to Chinese section.	Chinese section to British section.	Classes.	British section to Chinese section.	Chinese section to British section.
First	3,560	5,266	General merchandise..piculs	148,860	146,587
Second	17,597	24,005	Live stock..........number	....	35
Third	189,513	227,401			
Total	210,670	256,672			

MAIN LINE (LOCAL).

Passengers.			Goods.	
Classes.	Single fare per mile.	Number.	Classes.	Quantity.
	Hongkong cents.			
First	About 8	8,652	General merchandise...........piculs	134,072
Second	About 4	16,132	Government stores...............do	2,676
Third	About 2	363,745	Live stock.....................number	912
Total	....	388,529		

FANLING-SHATOWKOK BRANCH LINE.

First	About 6	1,657	General merchandise............piculs	14,164
Third	About 3	46,271	Government stores...............do	8.50
			Live stock.....................number	19
Total	....	47,928		

NOTE.—Picul equals 133⅓ pounds.

The gross earnings of the British section in the year 1918 were as follows:

Traffic.	Local.	Through.	Branch.	Total.
	Hongkong currency.	*Hongkong currency.*	*Hongkong currency.*	*Hongkong currency.*
Coaching	$132,353	$234,975	$7,482	$374,810
Goods	10,762	27,968	779	39,509
Sundries	16,204	2,752	....	18,956
Total	159,319	265,695	8,261	433,275

The expenditures during the same year were:

Items.	Main line.	Branch line.	Total.
	Hongkong currency.	*Hongkong currency.*	*Hongkong currency.*
Maintenance of way and works	$44,922	$3,670	$48,592
Locomotive, carriage, and wagon expenses	204,705	7,087	211,792
Traffic expenses	53,675	1.381	55,056
General charges	40,717	....	40,717
Miscellaneous expenditures	64	....	64
Total	344,083	12,138	356,221

The net earnings of the British section during 1918 amounted, therefore, to $77,054 Hongkong currency.

Main-line train mileage during the year totaled 230,746 miles, while the mileage on the Fanling line was 24,973.

Exhaustive contour surveys were carried out in 1918 over the routes for the projected branch lines to Taikoktsui and Taiwan Bay. Plans and sections covering the work have been prepared, and estimates have been completed.

The passenger rates on the British section range from 2 cents a mile, third class, to about 8 cents, first class. Through passenger rates between Kowloon and Canton and intermediate stations on both sections average about 5 cents a mile, single fare, for first class, and a fraction over 1 cent for third class. These prices are quoted in Hongkong currency. The Fanling-Shatowkok branch, 7½ miles in length, is a narrow-gauge line and since February, 1916, it has been run more on the tramway system than formerly. There is a 2-cent fare between each halt.

The freight rates on the British section, per mile per picul, in Hongkong currency, are as follows: Explosives, maximum 7½ cents, minimum 1½ cents; class I, maximum 4 7/10 cents, minimum 1 1/5 cents; class II, maximum 3 cents, minimum 3/5 cent; class III, maximum 1 1/5 cents, minimum 6/25 cent. Class I may be represented by bristles, class II by bicycles in crates, and class III by candied fruits. Low special rates are given for fruits, game, ginger, haberdashery, etc.

The minimum freight charged for a consignment carried by freight trains is 25 cents; the minimum distance charged is as for 15 miles. The goods carried are general merchandise.

The yearly contracts for coal and miscellaneous stores are put out to public tender, and as a rule British products are specified so far as possible.

TRAMWAYS.

The Hongkong Tramway Co. (Ltd.) and the Peak Tramways Co. (Ltd.) operate the only two tramways in the colony of Hongkong. The lines of the Hongkong Tramway Co. (Ltd.) run through the city of Victoria from Belchers Bay to East Point and Happy Valley and thence on to the village of Shaukiwan, a total length of 10 miles. The cars are about equally divided between the ordinary type and double-deckers. Each car weighs about 9½ tons. The company is under the immediate control of a general manager with a board of directors. The construction materials, rolling stock, etc., are of British origin. The rates are 5 cents, Hongkong currency, for second class and 10 cents for first class. In 1917 the net profit of the company reached $296,635 United States currency, on a capitalization of only $395,400.

The Peak Tramway was opened to traffic in 1888. It is on the wire-rope system and runs to Victoria Gap, where the stationary engine is placed, the lower terminus being near St. John's Cathedral. The ropes and other material are purchased in England. The number of cars in actual service is two, and one is held for emergency. The fare is 30 cents each way for first class and 10 cents for second. Punch tickets for both classes at slightly reduced rates are obtainable. Season tickets for three months are generally used by persons living on the Peak.

A series of tramway lines, 9½ miles long, will be constructed in Kowloon and operated by the government of Hongkong, unless private interests can be found which are willing to conduct the enterprise upon terms satisfactory to the colonial authorities. Kowloon is the peninsula opposite Hongkong and is becoming densely populated in places owing to the construction there of extensive docks and wharves.

ROADS.

A noticeable feature of the traffic conditions in the island of Hongkong and the New Territories is that there are practically no vehicles (except jinrikishas) and no draft animals of any sort. In Hongkong the nature of the roads makes the use of draft animals practically impossible. On the streets in the city of Victoria and in the villages transportation is effected by trucks hauled by coolies or else the goods are carried by the coolies. On the upper and Peak levels the coolies perform these services. There are a few motor trucks in use, these being limited to the streets in the city. As a matter of fact, the roads on the upper and Peak levels are not adapted for vehicles of any kind. Motor cars for pleasure are restricted to a few roads. In the New Territories the same conditions obtain in general, although the highways are adapted for heavy motor and vehicle traffic. The roads both on the island and the mainland are kept in excellent condition, and most of those in Hongkong are either asphalted or made of concrete. The Jubilee Road on the island has been extended to Deep Water Bay, and a 16-foot road has been extended to the border between British and Chinese territory near Fanling. It is now possible to motor from Kowloon to Castle Peak, a distance of 40 miles, and surveys have been completed to connect Castle Peak with Kowloon, a distance of 20 miles.

POSTAL FACILITIES.

The Hongkong general post office, because of the unrivaled shipping facilities at Hongkong, is the great distributing center of the Orient for the receiving and dispatching of mails. Mails in transit make up considerably more than half of the actual number of bags of mail handled at the Hongkong office. The total of the international and Hongkong registered correspondence and parcels averages over a million. The total number of Chinese registered articles amounted to nearly 210,000 in 1915, a large decrease over preceding years, mainly on account of the interruption of the trans-Pacific steamship services. More than half of these registered articles originate in the United States and Canada. There is a parcel post between Hongkong and the United States. The rules pertaining thereto, taken from the Hongkong Postal Guide, are as follows:

The following rules apply to the exchange of parcel post with the United States when parcels are posted to be sent via London:

(*a*) The charges payable in Hongkong currency on parcels for the United States are partly postal and partly nonpostal.

(*b*) The nonpostal charges which must be paid in advance are as follows: (1) Sixty cents on every parcel due to the American Express Co., for customs clearances and formalities, and (2) 60 cents in respect of the charges levied by the United States Government under the title of "Sample office fee" or "Storage fee" on every parcel entering the country.

(*c*) The postal charges must be prepaid by means of stamps affixed to the cover of the parcel. It is open to the sender: (1) To prepay in the same way the nonpostal charges other than customs duties. (2) While prepaying the charges specified under heading 1, to assume responsibility for the customs charges, so that the parcel may be delivered free of cost to the recipient. In this case it will be necessary to proceed in the manner described in rule 170. This arrangement insures a speedier conveyance, since ordinary parcels will remain at the New York customhouse until the addressees have remitted thither the amount of duty and other charges upon them. The charges not prepaid by the sender will be collected from the addressee.

(*d*) The sender may, without extra charge, direct that a parcel be sent through the New York customhouse in bond, for customs examination at any of the United States ports of entry or inland customhouses. This arrangement also does away with the delay at New York referred to in the preceding paragraph; but, on the other hand, the addressees will have to make arrangements for the delivery of parcels so treated after they have been cleared at the customhouse of the inland port of entry. The sender of a parcel intended to be forwarded in bond must mark it plainly "In bond to ———," naming the inland port of entry chosen, and the same words must also appear in the same handwriting on the customs declaration which accompanies the parcel.

(*e*) The nonadhesive form of customs declaration must be used. Two copies are required. If the parcel is to be sent in bond to an inland port of entry, it must be indorsed as directed in paragraph (*d*). Moreover, if the value of the goods contained in the parcel exceeds $100 gold, the declaration must be made before a United States consul on forms supplied by him.

When parcels are posted to be sent via San Francisco or to the Philippines:

(1) The contents of all such parcels must be specially declared, and must if over $100 in value be accompanied with a United States consular invoice.

(2) The weight limit must not exceed 11 pounds.

(3) Parcels must not be sealed.

(4) Parcels can not be registered or insured, and no compensation is payable should any such be lost or damaged when forwarded by this route,

In respect to money-order business between the colony and the United States there is an agreement between the two administrations for the direct exchange of money orders.

The time required to receive first-class mail matter from New York varies considerably. Letters sent via San Francisco by the regular liners take about 31 days; if they are mailed via Vancouver on the Canadian Pacific steamers the time is cut down to 23 days. The boats carrying mail to the Puget Sound ports, Seattle and Portland, are slower and the time, in general, would be somewhat longer.

TELEGRAPHS.

Hongkong has three telegraph companies, namely, the Eastern Extension, Australasia & China Telegraph Co. (Ltd.); the Great Northern Telegraph Co. (Ltd.); and the Chinese Telegraph Administration. The Eastern Telegraph system has cable connections throughout the world, but is without cable landings in the United States. Messages for America are sent via the Commercial Pacific Cable Co. or the trans-Atlantic telegraph companies. The supplies of this company are mainly obtained directly from the head office in London. The rates in Hongkong currency are fixed every quarter, subject to alterations without notice.

The head office of the Great Northern is in Copenhagen. The cables and land lines of this company connect with the Faroe Islands, Iceland, Great Britain, Denmark, France, Sweden, Finland, Russia, Siberia, Japan, China, and Hongkong. It has no cable landing in the United States, but has connections with the trans-Atlantic telegraph companies and the Commercial Pacific Cable Co. This company manufactures most of its own instruments. The tariff rates are published in Hongkong currency and are changed quarterly, subject to alterations without notice.

The Chinese Telegraph Administration has a direct wire to Canton, one to Swatow, and one to Shameen. For service to Shanghai and Peking the message is sent to Canton and there repeated. The rate to points in Kwangtung is 9 cents, Hongkong currency, per word, and to other places 18 cents per word. This company has no cable connections with the United States. All materials are supplied by the head office at Shanghai.

The wireless station at Hongkong is located at Cape d'Aguilar, on the island of Hongkong, and it has a radius of 500 to 700 miles by day and 1,300 miles and over by night. The service is in charge of the general post office of the Hongkong government. The charges are $1.50 gold for a 10-word radiogram (this being the minimum charge) and 15 cents gold for each additional word.

TELEPHONES.

The China & Japan Telephone & Electric Co. (Ltd.), incorporated in the United Kingdom, is the only telephone company operating in the colony of Hongkong and the New Territories. It is on the magneto ring system, which is the one used to a large extent in the Orient, the instruments being manufactured by L. M. Ericsson & Co., of Stockholm, Sweden. The rental of each installation is £10 per annum for all places within 1 mile of the company's exchanges. Extension telephones up to any number in the same building are charged for at £2 10s. per annum each. The banks, the leading hongs, and a number of the hotels and boarding houses are equipped with sub-exchanges. On December 31, 1914, there were 2,973 telephones and 3,800 miles of single wire. The prospects of extension are limited.

NEWSPAPERS.

Four daily newspapers in the English language are published in Hongkong, two being morning and two evening papers. These papers reach all the English-speaking people in the ports of south China. Five papers are published in Chinese. Following are the advertising rates, subscription prices, and estimated circulation of these nine newspapers:

South China Morning Post, Hongkong; daily morning newspaper, in English. Advertising rates: $5 Hongkong currency to $8 Hongkong currency per inch per month. Annual subscription price: $36 Hongkong currency. Estimated circulation: 3,500.

Hongkong Daily Press, Hongkong; established 1857; daily morning newspaper, in English. Advertising rates: $7 Hongkong currency per inch per month. Annual subscription price: $36 Hongkong currency. Estimated circulation: 2,000.

Hongkong Telegraph, Hongkong; daily afternoon newspaper, in English. Advertising rates: $5 Hongkong currency per inch per month. Annual subscription price: $36 Hongkong currency. Estimated circulation: 3,000.

China Mail, Hongkong; daily afternoon newspaper, in English. Advertising rates: $5 Hongkong currency per inch per month. Annual subscription price: $36 Hongkong currency. Estimated circulation: 2,000.

Wah Tsz Yat Pao (Chinese Mail), Hongkong; daily newspaper, in Chinese. Advertising rates: $9 Hongkong currency per 100 characters per month. Annual subscription price: $11 Hongkong currency. Estimated circulation: 4,000.

Chung Ngoi San Po (Chinese Daily Press), Hongkong; daily newspaper, in Chinese. Advertising rates: $4 Hongkong currency per 100 characters per month. Annual subscription price: $11 Hongkong currency. Estimated circulation: 1,200.

Sheung Po, Hongkong; daily newspaper, in Chinese. Advertising rates: $12 Hongkong currency per 100 characters per month. Annual subscription price: $11 Hongkong currency. Estimated circulation: 2,500.

Shat Po, Hongkong; daily newspaper, in Chinese. Advertising rates: $7.50 Hongkong currency per 100 characters per month. Annual subscription price: $11 Hongkong currency. Estimated circulation: 2,000.

The Tsung Wan Yat Po, Hongkong; daily newspaper, in Chinese. Advertising rates: $12 Hongkong currency per 100 characters per month. Annual subscription price: $11 Hongkong currency. Estimated circulation: 2,000.

WEIGHTS AND MEASURES.

The English weights and measures are generally used in Hongkong, with the exception of the following units, which are employed commercially: 1 tael = 583.3 grains (0.08 pound avoirdupois) = 37.783 grams; 16 taels = 1 catty = 1.333 pounds = 604.53 grams; 100 catties = 1 picul = 133.3333 pounds = 60.453 kilos.

PATENTS AND TRADE-MARKS.

The Hongkong ordinances make no provision for the original patenting in the colony of any article or process, as there are no experts in the employment of the Government who can consider and pass upon the technical specifications of any patent; but by an ordinance (No. 2 of 1892) it is provided that letters patent may be obtained in Hongkong for any invention for which letters patent have already been granted in Great Britain. The only method, therefore, by which any article can be patented in Hongkong is by first obtaining a patent for the invention in Great Britain. By special arrangement it is provided, however, that temporary protection for an inventor can be had in Hongkong while his application for a patent is pending in Great Britain. Patent applications in Hongkong are made through local solicitors—upon petition supported by a declaration or affidavit of the applicant to which a specification of the invention for which patent is sought is attached. Where it is desired to obtain letters patent for a local invention, Hongkong solicitors can prepare the necessary specifications required to be filed on application for letters patent in Great Britain. Where it is desired to obtain letters patent for an invention made and patented in the United States that invention must first be patented in Great Britain, after which letters patent can be obtained in Hongkong.

With regard to trade-marks an ordinance was passed in the colony in 1909, which is formed upon the English act of 1905, and precisely the same rights as to the exclusive use of a trade-mark can be acquired by registration in Hongkong as by registration in England. By the ordinance above mentioned special protection is given to trade-marks used in the colony but invented abroad. In China itself, although the Chinese Government has, in a treaty with Great Britain, undertaken to establish offices throughout the country "where foreign trade-marks may be registered on payment of a reasonable fee," nothing further has yet been done by that Government in regard to the matter. Nevertheless, the rights of foreigners to the exclusive use of their trade-marks is recognized by Chinese officials in China, and occasionally infringers have been punished. No particular form of a power of attorney is required for the purpose of enabling any agent in Hongkong to apply for the registration of a trade-mark, which can only be assigned together with the good will of the business in which it is used.

In Hongkong not only may foreigners obtain registration of their trade-marks but protection will be given by the court against the infringement of a foreign trade-mark whether registered or not. The benefits of the new trade-mark ordinance are not in any way restricted to British subjects.

PUBLIC WORKS AND SANITATION.

PLANS FOR RECLAMATION AND HARBOR WORK.

Several schemes in the line of city building and allotment of certain land of the Government for European population, including the Portuguese, have been under consideration for some years, and no doubt if there had been no war some of these plans would have materialized. The most ambitious plan is in reference to reclamation and harbor work, which would cost several millions. These plans have been practically settled with the possible exception of minor details. The dredging of the harbor to accommodate vessels of greater tonnage is a matter of vital importance, and already some little dredging has been done, though not on the scale that will soon become imperative. The reclamation scheme involves the filling in of that area of the Hongkong harbor inclosed within a line drawn from East Point to a point opposite Arsenal Street, about a mile distant to the north and toward the principal portions of the city of Victoria. The area reclaimed will average about one-fourth of a mile in width. The reclamation of this area will afford considerable expansion of territory in a portion of the colony now congested in population and industrial lines.

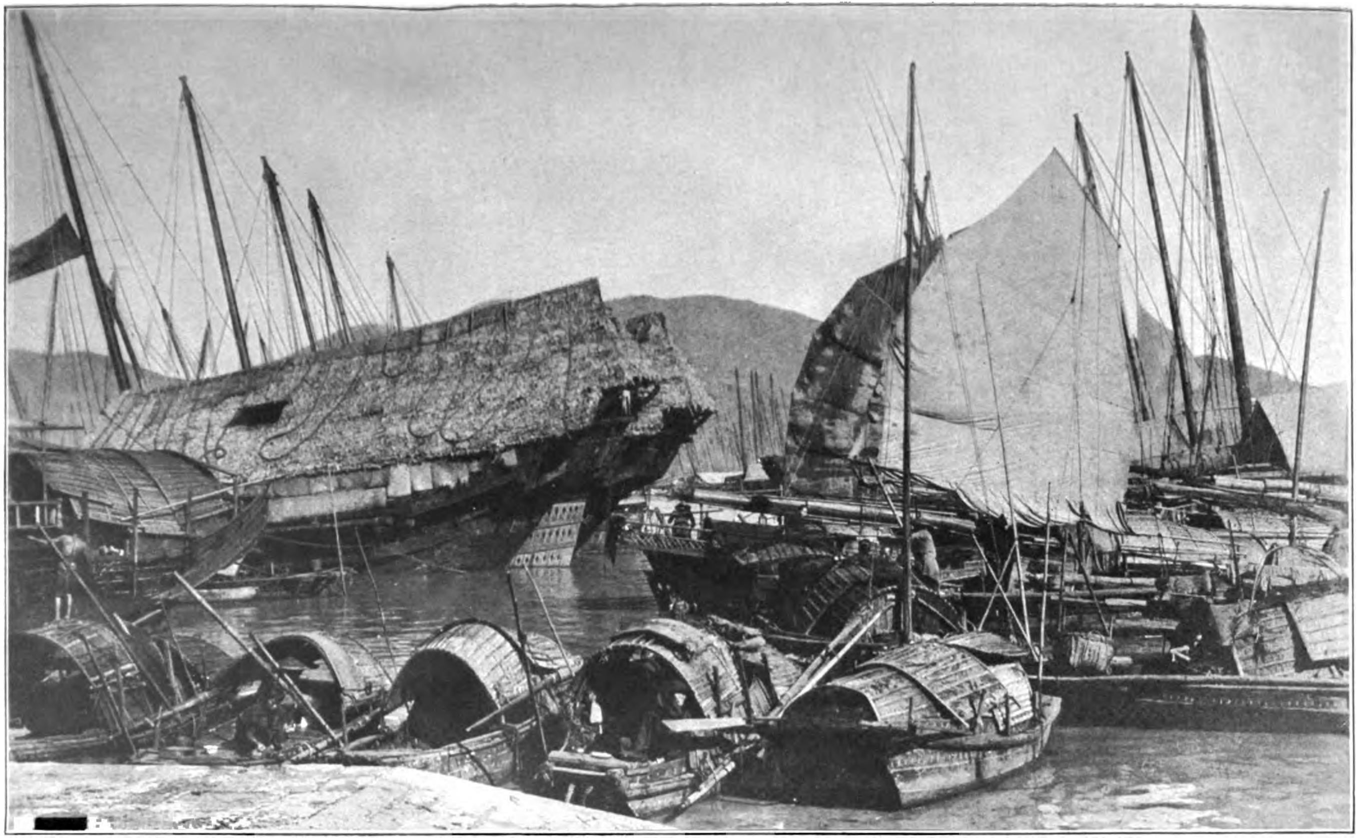
MUNICIPAL ROADS.

One of the most interesting features of Hongkong is the system of fairly wide streets on the lower levels; the roads on the middle and higher levels, which are not suitable for vehicular traffic; and the roads at the Peak, which are likewise not for vehicles. In addition, there are miles of forestry paths, which extend to practically all parts of the island, and although primarily constructed for the use of the Government they are extremely popular for walking excursions. Altogether there are 98 miles of roads in the island. On the middle and higher levels the roads have been built chiefly of concrete cement at great cost, and the tendency at present is to employ macadam, this apparently proving the strongest against the ravages of torrential rains. On the carriage roads throughout the city of Victoria and environs the bituminous treatment is being used considerably, with satisfactory results, as there is an appreciable diminishing of erosion of surface caused by rain scour. Granite sets, tar macadam, thin coating of tar topping, and tarring and sanding are likewise being employed extensively. The streets are fairly well lighted, gas being generally used. In British Kowloon there are 28 miles of streets, all of them being permanent highways, and in the New Territories there are 50 miles of roads, some of them being military roads. The highway extending from Kowloon through to Taipo to the Fanling golf course is completed. This road runs over the mountains, is 16 feet wide, and is extensively used for motor traffic.

WATER SUPPLY AND SEWERAGE.

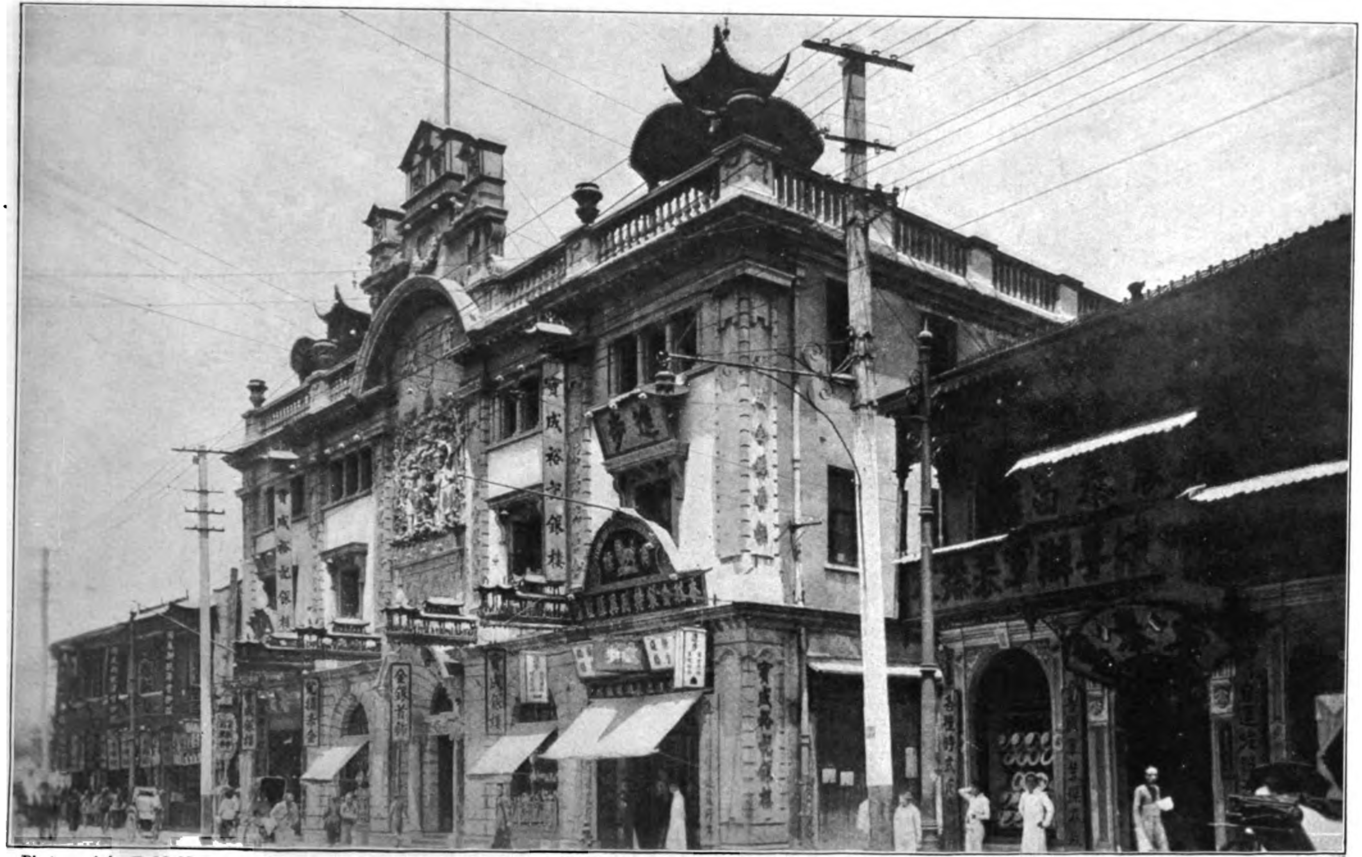
The water is obtained from surface drainage on the hills of the island outside the limits of habitation. The water is held in a number of reservoirs placed at proper points, and the filtering is done by sand in four separate filter beds. The analyses are made by the government; the water is of good quality and the results obtained by bacteriological examinations are satisfactory. The Tytam Tuk reservoir, which had been under construction for five years, was opened to public use on February 2, 1918. The dam is capable of impounding 1,419,000,000 gallons of water. With the new reservoir, the colony's water system now has a capacity of substantially 2,166,000,000 gallons.

There is no modern sewerage in Hongkong, and in general the dry-closet system is in vogue. In the European business section of



Photograph by E. M. Newman.

FIG. 16.—SAMPANS AND JUNKS IN A CHINESE HARBOR.



Photograph by E. M. Newman.

FIG. 17.—A CHINESE JEWELER'S SHOP.

the city flush closets have been installed, and these are being slowly extended. The streets are kept clean and the houses of the Chinese are periodically examined by the sanitary board. There is an increased tendency on the part of the Government to extend the flush closets and otherwise to modernize the sewerage system.

FIRE PROTECTION.

The city is well provided with fire protection, there being two fire floats, one motor fire tender, and four land steamers with the necessary equipment of hose reels, extension ladders, and the like. There is a constant supply of water in the fire mains. There are 38 dispatch boxes in Victoria and 12 in Kowloon, with 8 different telephones to which the police can have access to communicate with the central station in the event of a fire, as well as 12 street fire alarms. The Peak district is also provided with fire apparatus.

PUBLIC-SERVICE COMPANIES.

In the colony of Hongkong there are two electric lighting companies, the Hongkong Electric Co. (Ltd.), on the island of Hongkong, and the China Light & Power Co. (Ltd.), in Kowloon. The plant of the former company is at Wanchai. It consists of four 350-kilowatt Sulzer Diesel engines with Oerlikon alternators, three 200-kilowatt Sulzer Diesel engines with Electric Construction Co. alternators, two 250-kilowatt and two 50-kilowatt Bellis steam engines with Johnson & Phillips alternators; total, 2,600 kilowatts. A new plant, now in process of construction at North Point, Hongkong, will contain two 1,500-kilowatt British Thomson-Houston turbo alternators and three Babcock & Wilcox boilers. The frequency in the present plant is 75 cycles, but in the new installation it will be changed to 50 cycles. The scale of charges[1] is as follows: For monthly accounts under $25, $0.20 per unit, net; between $25 and $100, $0.20 per unit less 10 per cent; between $100 and $250, $0.20 per unit less 15 per cent; between $250 and $500, $0.20 per unit less 20 per cent; between $500 and $1,000, $0.20 per unit less 25 per cent; between $1,000 and $1,500, $0.20 per unit less 30 per cent; over $1,500, $0.20 per unit less 35 per cent. For power supplied to motors of approved pattern, lifts, heating and cooking appliances, $0.07½ per unit, net. For power to restricted hour consumers not using current between the hours of 6 p. m. and 9.30 p. m., $0.05 per unit, net.

The alterations and extension of the China Light & Power Co. (Ltd.) have recently been completed. The details of the new steam plant are as follows: There are two steam turbo generators, each of 750-kilowatt capacity, three phase, 2,200 volts, 60 cycles, made by the British Thomson-Houston Co. The surface condensing plant was made by Merrilees, Glasgow. There are three Babcock & Wilcox water-tube boilers with integral superheaters and Green's economizer. The switchboard was made by the British Thomson-Houston Co. The charges are: For lighting and fans, $0.35 per unit; for large consumers, $0.20 per unit; for motors, $0.07½ per unit.

The gas plant at Kowloon will soon be given up. The gas plant in Hongkong, owned by the Hongkong & China Gas Co., is situated at West Point.

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[1] In Hongkong currency.

FINANCE AND BANKING.

The Hongkong coins are: Dollar (Mex.), dollar (British dollar currency), half dollar (Hongkong currency), 20-cent piece (Hongkong currency), 10-cent piece (Hongkong currency), 5-cent piece (Hongkong currency), 1-cent piece (Hongkong currency).

The Hongkong & Shanghai Banking Corporation, the Chartered Bank of India, Australia & China, and the Mercantile Bank of India issue bank notes of various denominations that are also legal tender.

The monetary unit of transactions in Hongkong is the dollar, local currency. The rate of exchange on foreign countries using a gold standard depends chiefly on the fluctuations in the value of bar silver.

In Hongkong there are the following foreign banks:

Bank of Taiwan.
Hongkong & Shanghai Banking Corporation.
Canton Bank (Ltd.).
Yokohama Specie Bank.
Nederlandsche-Indische Handels Bank.
Nederlandsche Handels Mattschappij.
Mercantile Bank of India.
International Banking Corporation.
Asia Banking Corporation.
Chartered Bank of India, Australia & China.
Banque de l'Indo-Chine.
Banque Industrielle de Chine (Franco-Chinese).
Russo-Asiatic Bank.

These banks transact every kind of general banking and exchange business. Interest is allowed on current accounts at 2 per cent per annum on daily balance and 4 per cent per annum on fixed deposits.

Complete banking facilities are afforded the public at the office of the American Express Co.

The Hongkong & Shanghai Banking Corporation conducts the business of the Hongkong Savings Bank, paying 4 per cent on fixed deposits. Concerning this corporation the North China Herald recently said:

> The Hongkong & Shanghai Bank declared a profit for 1918 of $9,820,420. In view of the uncertain trade outlook the chairman advocates a conservative policy and an addition of $1,500,000 to the silver reserve fund. The bank will keep free of control by amalgamated home banks.

Chinese native banks in Hongkong transact all kinds of banking business, including issuance of drafts payable by their respective agents in the treaty ports in China. Chinese banks do not accept current accounts. The shortest period they allow is 14 days and the interest is $0.14 to $0.16 (Hongkong currency) per $1,000 per day for deposits, and $0.18 to $0.20 per $1,000 per day for loans. The rate of interest for time deposits (six months) is $0.12 per $1,000 per day. Chinese banks do not issue loans against real-estate security. Gold coins and Chinese subsidiary coins are accepted for security for loans, and the interest is $0.10 to $0.20 per $1,000 per day.

In Hongkong the following are among the principal Chinese banks:

Tai Yau Bank.
Ming Sun Bank.
Soy Kut Bank.
Wui Loong Bank.
Yut Cheung Bank.

MANUFACTURING AND OTHER INDUSTRIES.

There has been a steady growth in industries and manufactories during the past 10 years, and the opportunities for greater extension are, in general, almost unlimited. Hongkong is a free port and the shipping and storage expenses are very reasonable. On the mainland there is sufficient room for a large development in lines of manufacture. In normal times the cost of importing raw materials is reasonable, and many of the raw materials are produced in the Far East. Iron and steel are imported from Europe and America, but raw sugar, for instance, is brought from Java and the Philippines. Cement is produced in large quantities, the stone coming from China and Haiphong. Hongkong is the center of the rattan and sea-grass furniture industry and, since the war, has been the central point for the exportation of rattans. The food products prepared by the Chinese and shipped to all parts of the world are for the most part grown in the Canton district. There are two sugar refineries, the China Sugar Refining Co. and the Taikoo Sugar Refinery. The first-named has a large distillery, in which quantities of rum are manufactured. The rope factory at Hongkong is said to be one of the best equipped in the Far East and has a very large trade, shipping goods to most European countries besides furnishing most of the oil wells in Burma with their rope equipment. There is a glass factory, a match factory, a cigarette factory, a soap factory, an ice factory, a biscuit (cracker) factory, and a tannery. Lard is produced in large quantities under government inspection. There are knitting mills of some importance run by Chinese. The Dairy Farm has one of the best equipped dairies in the world, with cold storage and other accessories. There are two other cold-storage plants in the colony, one now being used for chilling meat for the Philippine market. The chief meat, dairy, and produce company in Hongkong is seriously undertaking the packing of meat in tins and otherwise for export, and promises to become an important, if not a controlling, factor in the tinned-meat trade in southern Asia. The embroidery makers have passed from old Chinese designs to the manufacture of embroidered goods from late European and American models on order. Local paper makers are undertaking the manufacture of higher-grade paper. Foundrymen are making more and more hardware in foreign style. Canning companies are extending their list of goods packed for export.

The colony has well-established and thoroughly modern dockyards. The Hongkong & Whampoa Dock Co. has very extensive establishments. The No. 1 dock at Hunghom has received the largest British war vessel on the China station. Its dimensions are 576 feet in length, 86 feet in breadth at entrance at top and 70 feet at bottom, and 30 feet of water over sill at ordinary spring tide. The Hongkong & Whampoa Dock Co. announced on March 31, 1919, that the extension to its large plant is ready for the installation of the machinery which is expected to arrive in the course of the summer, some of it from the United States. When the machinery is in place, the company's shipyard will consist of 12 berths—3 of which are for vessels up to 800 feet in length, 5 for vessels up to 500 feet, and 4 for vessels up to 250 feet. Due enlargement of the company's boiler works, machine shops, sawmills, and other establishments is being made on land acquired for the purpose. Land has also been acquired for the construction of a new graving dock between the two large docks already in operation. The new dock will have a length of 1,000 feet, an entrance of 110 feet, and sufficient depth for the largest vessels expected on the Pacific in many years. In the course of the enlargement of its western yard the company is tearing down three blocks of houses which are to be replaced by more modern quarters in a better location overlooking Kowloon Bay. The change is made partly with a view of bettering the living conditions of the company's European staff. The *War Sniper*, the largest ship yet constructed by the Hongkong & Whampoa Dock Co., was successfully launched March 27, 1919. The vessel is 412 feet long, has a capacity of 8,000 tons, and a speed of 11 knots. This is the second of a series of six vessels; one of which, somewhat smaller, known as the *War Drummer*, had previously been launched. Three of the others and the *War Sniper* are built entirely of American steel and other materials. They are in the B class, standard type, built to the order of the Controller of Shipping in London, and to Lloyd's highest class 100 A 1. These ships are constructed entirely in the Hongkong shipyard.

The Taikoo Dockyard & Engineering Co. has an exceptionally large dock. It has been designed to admit of further increasing its length. The dimensions are 787 feet extreme length; 750 feet on the block; 120 feet wide at coping; 77 feet 6 inches at bottom; 88 feet width of entrance at top; 82 feet width of entrance at bottom; 34 feet 6 inches depth over center of sill at high water spring tide; 31 feet depth over all at low water spring tide.

W. S. Bailey & Co. (Ltd.) are shipbuilders and repairers and can undertake the construction of all types of vessels up to 250 feet long, either in wood or steel. The slipway is able to deal with crafts up to 150 feet in length and drawing about 12 feet of water. Particular attention is given to the construction of all types of motor boats for any service.

POSITION OF HONGKONG IN RELATION TO COMMERCE.

The position occupied by the British colony of Hongkong in the world's trade is unique and without parallel. It is a free port except for a duty on wine and spirits; it has relatively few important industries; it is one of the greatest shipping centers in the world; it is the distributing point for all the enormous trade of South China, and about 30 per cent of the entire foreign commerce of China passes through the colony. In 1918, according to the returns of the Chinese Maritime Customs, Hongkong imported from China goods valued at $139,566,705 and exported to that country merchandise valued at $193,494,836, and these figures in no way include the purely local foreign trade, which is very large.

The conditions of Hongkong in its relation to commerce are in every way excellent, and the Government centers all its efforts on fostering trade. The harbor is magnificent and entirely equal to the present demands of foreign and domestic trade, while the future is being anticipated by increased dock facilities, the dredging of the fairways, and other improvements. Following the conclusion of the war immediate attention will be given, it is understood, to the extensive reclamation scheme at Wanchai, which will add materially to the harbor shipping facilities. The majority of vessels are discharged and loaded by junks and lighters, and ships having large amounts of freight to discharge use the docks at Kowloon, equipped with commodious godowns (warehouses). The merchants, both native and foreign, give special attention to the assembling and transshipping of merchandise to and from all parts of the world, and with the world-wide steamship connections at Hongkong the necessity of retransshipments at other ports is reduced to a minimum. In this connection it is of special importance to American shippers to make adequate arrangements at Hongkong with qualified export agents for the rapid transshipment of cargo to other places, whether the merchandise is shipped on through bills of lading or only documented to Hongkong.

As Hongkong is the financial center of the Far East, the facilities for the negotiation of bills, exchange, credits, and other lines of banking business are satisfactory. The Hongkong dockyards are modern and thoroughly equipped to meet all emergencies; the coal depots are large and in normal times the coal is reasonably cheap; the water supply is ample and of excellent quality; and general ship's provisions and supplies can be readily obtained. The water and rail connections with the Canton Delta are equal to the demands of the business. There are no Government charges to be paid on transshipment cargo.

It is necessary that all goods be substantially packed in strong cases, plainly marked, with a statement of contents and final destination.

As regards China cargoes, an invoice giving market valuation must accompany each shipment.

COMPILATION OF HONGKONG TRADE RETURNS.

Early in 1919, for the first time in the history of the port and of British trade in the Far East, official returns were published in Hongkong covering the trade of the colony and British trade in the Orient generally. The import and export department of the colonial government, a bureau formed originally for the purpose of war control of incoming and outgoing commodities, on April 5 issued the trade and shipping returns for 1918 for the colonial government, which represent the first attempt to set forth accurately the trade of the colony. Previous to the war there were no official trade statistics for Hongkong, the only information available in trade lines being that compiled by the Hongkong General Chamber of Commerce or various firms or consulates for their own use, and consisting of figures secured from bills of lading of vessels, without detail and often with little claim to accuracy in any way. With the advent of the war came the necessity of controlling the importation and exportation of certain commodities, and a bureau was established for that purpose.

In 1915 an ordinance was passed by the legislative council requiring import and export permits for all goods, and an import and export department was established to exercise such control. In connection with this war work an effort was made to analyze and record the trade information thus obtained, but it was impossible to do much in this line until the middle of 1917, and the calendar year 1918 is the first entire year for which returns are available.

Great difficulty was experienced in securing accurate information from Chinese and even foreign shippers—linguistic difficulties, the difficulty of adjusting classifications to those of other trading countries and to China, and many other obstacles to success—but it is believed that on the whole the result is not far from the actual facts. The publication is alive with matters of great interest to all concerned in the trade of China and the Far East, and it contains many surprises.

Six years ago the estimated annual turnover of the trade of Hongkong was $250,000,000 gold, but the estimate was considered rather high. Since that time values of all commodities have advanced greatly and trade has increased, and the returns for 1918 give the annual turnover at £127,990,977, or about $622,868,089 gold. This is substantially two-thirds of the total value of all the foreign trade of China in the same year. A little over a third of this total trade is with various parts of China and Formosa; a sixth of it is with Great Britain and various British dominions scattered all over the world; a fifth of it is with Japan; about an eighth of it is with the United States and the Philippine Islands; about a fifth with Indo-China. The division for 1918 according to countries was as follows, in United States currency:

Countries.	Imports from—	Exports to—	Total.
United Kingdom	$21,603,479	$5,413,402	$27,016,881
Australia	6,036,368	1,764,466	7,800,834
Canada	545,973	3,218,898	3,764,871
New Zealand	40,913	199,200	240,113
India and Ceylon	17,549,796	11,077,074	28,626,870
Burma	601,675	1,634,589	2,236,264
Africa	109,817	1,962,752	2,072,569
Straits Settlements and Federated Malay States	13,220,748	15,107,027	28,327,775
British North Borneo	1,463,824	487,565	1,951,389
West Indies	....	1,287,802	1,287,802
China	45,559,166	180,115,959	225,675,125
Japan and Korea	47,785,482	21,872,402	69,657,884
Netherlands East Indies	6,428,369	7,748,451	14,176,820
French Indo-China	74,405,257	28,490,170	102,895,427
Siam	17,509,351	5,483,743	22,993,094
Philippine Islands	2,649.717	7,319,411	9,969,128
Vladivostok	8,701	1,144	9,845
United States	40,625,805	26,361,801	66,987,606
Central America	....	717,638	717,638
South America	12,478	4,431,547	4,444,025
France	147,504	1,595,137	1,742,641
Italy	30,513	45,082	75,595
Europe (other)	197,893	....	197,893
Total	296,532,829	326,335,260	622,868,089

These returns represent rather abnormal trade, and the trade in certain items shows a considerable change. The imports of machinery have been comparatively small, while imports of iron and steel for distribution all over the East have been abnormally large. Imports of certain foodstuffs and other supplies for the Allied forces in the Orient also have affected returns. The trade in lines such as condensed milk has been unusually large, yet unquestionably much of this new trade will become permanent. In some items the war has merely accelerated a movement well marked before the beginning of hostilities and has affected trade routes by diverting shipping, which has not been to the advantage of Hongkong nor resulted in swelling the returns now made.

The greatest difficulty is in securing an accurate measure of the trade of the port. Concerning this phase of the matter the superintendent of imports and exports, Mr. D. W. Tratman, in an introductory note to the report, says:

> Hongkong is essentially an entrepôt where merchandise from all parts of the world changes hands or ships, or both. The colony produces nothing, animal, vegetable, or mineral, of any account from a world-trade point of view. Its local consumption, except in the case of materials for shipbuilding, ship repairing, and ship furnishing, is from a similar relative point of view negligible. There are, it is true, besides shipbuilding, local manufacturing industries of very considerable importance which absorb large quantities of raw or semiraw materials, notably crude tin, raw sugar, and raw tobacco. But the products of the tin and sugar refineries and the tobacco factories are destined almost wholly for reexportation. The returns do not include: (a) Articles imported or exported by the colonial government or naval and military authorities; (b) cargo arriving for transshipment only on through bills of lading, except wolfram ore from South China; (c) cargo, except ores and minerals, arriving from ports in China south of Swatow and from the neighboring Portuguese colony of Macao; (d) a portion of the cargo arriving from the Chinese ports of Swatow, Amoy, and Foochow (described in the returns as Middle China); (e) movements of bullion and specie; (f) cargo landed into warehouses and left unclaimed on December 31, 1918; and (g) ship's stores and bunker coal.
>
> The omissions in (b) and (c) may be found surprising. The reason for (b) lies in the fact that the local firms to whom the goods are consigned for transshipment rarely have sufficient particulars to make anything more than a very general classification practicable. As, however, the whole trade of the colony may be regarded as transshipment, an endeavor will be made in 1919 to compile under broad headings some record of this class of transshipment cargo. The trade in (c) is mainly that passing out of China through the Canton and West River Delta. A large proportion of this traffic is represented by regular lines of river steamers which require to unload and reload for the return journey with as little delay as possible. It would greatly impede the free circulation of this traffic if delivery of inward cargo had to await the issue of import permits, and general import licenses permitting delivery without permits of all inward cargo except ores and minerals have therefore been granted to the agents of these vessels.
>
> If and when conditions allow of the abolition of the present system of import and export permits in favor of a system of declarations directed purely to record keeping, it may be possible to analyze these short-distance foreign imports in the same way as other imports, but under existing conditions the gap in the records for South China is so large that any import figures for this area (except for ores and minerals, for which import permits are required in all cases) would only be misleading. Moreover, the omission is not so serious a defect as it might seem, for practically the whole trade of South China with the world at large passes through Hongkong, and the foreign export trade of this territory, except such portions as are represented by through bills of lading from Canton, is therefore recorded in the export returns of Hongkong. It is, in fact, this omission that explains the apparent excess of the colony's exports of certain articles over its imports (e. g., ginger, lard, wood oil). The difference represents not local production but unrecorded imports from South China.

This great question as to what shall be and shall not be included in Hongkong returns renders it difficult to make accurate and valuable comparisons with other returns. The latest American figures and estimates available indicate that imports from the United States into Hongkong in 1918 had a value of something like $25,000,000, while the Hongkong returns indicate a value of £8,348,054, or $40,625,805 gold. The declared exports from Hongkong to the United States amounted to $33,107,246, while the Hongkong returns credit the United States with having taken goods to the value of only £5,416,994, or $26,361,801 gold.

It seems probable that, aside from the improvements in the scope and nature of the returns which are being made by the imports and exports department of the colonial government for the current year, great changes in some of the principal items will be noted. Present indications are that the trade of Hongkong in 1919 will be as much below normal on the whole as any year recently has been above normal, so that it is likely that it will be several years before the returns can be secured on a basis admitting of reasonable and safe comparisons.

Incidentally the returns demonstrate the widely scattered nature of Hongkong's trade. The impression which obtains generally in the United States that the colony is merely a gateway into and out of South China will not endure long in the face of the fact that the whole of China and Formosa account for only a little more than a third of its trade.

EXPORT TRADE.

While the export trade of China is dependent on the general political situation, still it is less affected by this factor than is the case in any other country. The Chinese are born traders, and political unrest unaccompanied by civil revolution does not always give rise to economic depression. In a way it can be considered that the export trade of the colony is only another form of the import trade, for the business of Hongkong is largely that of a central clearing house. As a rule the exports from Hongkong follow well-determined lines, and the variations in the quantities shipped depend on the demand of European and American markets. Unsettled political conditions in South China and the course of exchange when the price of silver is high have marked influence on the volume of business, but no doubt a fluctuating low exchange is still more detrimental than a fairly steady high exchange. It is indeed fortunate for the South China producer that foreign countries at present need some of the staple articles from this market and pay prices far above the normal market values.

The leading products shipped from Hongkong to all parts of the world are: Antimony regulus, star aniseed, bamboo and bamboo ware, bamboo shoots, beans, bristles, canes, cassia, chinaware, Chinese medicines, Chinese boots and shoes, Chinese tobacco, Chinese drugs, dried fruits, feathers, firecrackers and fireworks, fire-clay products, embroideries of all kinds, galangal, ginger, hides, human hair, incense sticks, dried lichees, dried lily flowers, mats, matting, gallnuts, vegetable oils, essential oils, palm-leaf fans, prepared fish products, peanuts, rattan core, rattan furniture, rice, sea-grass furniture, soy, tapioca flour, tea, tin in slabs, and walnuts.

IMPORT TRADE.

In contradistinction to the export trade of Hongkong, which follows fairly definite lines, the import trade is broadening from year to year as the necessities and demands of the Chinese are developed. The war has radically changed the commercial situation, and to-day American trade has expanded and developed in ways that previously were not considered possible. During the war the United States was the only remaining neutral country from which the Chinese could obtain articles that were formerly furnished almost entirely by European countries, and consequently America at once became a tremendous factor in the commercial development of China. Never before has the interest of American manufacturers and exporters been thus stimulated in relation to the possibilities of Far Eastern markets, and to-day this awakened interest is manifested in the establishment of new firms in Hongkong and China generally. New steamship lines have been launched in the trans-Pacific trade and others are in process of establishment, and it seems evident that American firms are determined to consolidate connections already in being and to develop and strengthen these against the impending competition of European countries.

Many commercial writers of late, in discussing the potentialities of China and the best methods of reaching the trade by direct channels, have advocated the elimination of the Chinese comprador as one of the first steps to be undertaken. In theory this is a splendid idea, but in order to do away with the present system a substitute must be found for the Chinese middleman and none is ready at hand. China differs from most other countries in that importers of Chinese goods do not, except in rare instances, deal directly with Chinese producing firms, factories, or mines. The difference in language and customs, the poverty of China, and its imperfect foreign banking facilities are responsible for this state of things. Force of circumstances compelled the European houses in the early days of the trade with China to employ the comprador in all negotiations, and to this day the system, with its confessedly great drawbacks, is deep-rooted, and its elimination will be a slow, though not an impossible, process. The number of foreigners in China who speak the language and the various dialects and understand the complexities of Chinese methods in trade are very few indeed, and although attempts are being made to remedy this state of affairs, particularly in the formation of schools for studying the Chinese language, it will be years before any real ultimate benefit can be obtained. It is no doubt true that present methods are antiquated, costly, and a great obstacle to close connections with the Chinese, but foreign merchants without their own establishments in China must place themselves in the hands of well-known houses that protect their indirect dealings with the natives through compradors. It is not advisable for the American houses to make direct connections with the Chinese buyers unless the conditions are favorable and unless there is a thorough knowledge of their customers' responsibilities. It is therefore infinitely better to follow the recognized and unquestionably safer custom until it has been proven that direct trading is safe and practical.

In the majority of cases the American manufacturers and exporters are not specific enough when writing to American consuls for information concerning the possibilities of a market for a line of American products. It would be of the greatest assistance for consuls to be furnished full information concerning the financial standing and business responsibilities of the American house (with bank references), details as to the goods manufactured, price lists, free samples, and such other information as will enable the consul to approach interested parties with sufficient data to give the possible importer a good working knowledge of the article. If the American firm is represented elsewhere in the Orient the consul should be so informed, and—what is equally important—if inquiries are sent to several consuls this fact should be noted. In other words, the consul should receive the same amount of information as the manufacturer or exporter would expect to receive from any inquirer in Hongkong or elsewhere.

Among the principal imports from America are petroleum products, flour, lumber (used very largely in the Hongkong industries), food products, metals, and canvas.

Particular attention is called to the following articles, which at the present time are being sought from the United States: Alcohol (94 per cent American proof), bedsteads, boots and shoes, belting, carbonic acid gas, chemical products, electrical accessories, explosives, glassware and glass bottles for chemists, haberdashery, hardware, metals, knitting machinery, ladies' dress accessories, lead, leather for boots and shoes and for bookbinders, motor engines, packing for engines, paints, powder for Chinese ink, quicksilver, tinned plate, umbrellas, wire rope, and varnishes.

TRADE BETWEEN HONGKONG AND UNITED STATES DURING 1918.

The trade between Hongkong and the United States during the calendar year 1918 constituted almost the whole oversea trade of the port in many of the principal lines. The principal supplies of the country depending upon Hongkong and the principal exports of the same territory came from and went to the United States in larger volume than in the case of any other country.

The value of imports from the United States during 1918 is estimated at about $25,000,000, as compared with an estimated value of $16,500,000 for the previous year.

The value of exports from Hongkong to the United States in 1918 was $33,107,246, as compared with $25,548,413 in 1917, $15,407,690 in 1916, and much smaller amounts in previous years. Exports to the Philippine Islands in 1918 were valued at $6,739,044, as against $6,657,851 in 1917. Exports to Hawaii amounted to $366,903 in 1918, as against $509,859 in 1917. The total exports from Hongkong to all American territory, therefore, were valued at $40,213,193 in 1918, as compared with $32,716,123 in 1917. The following table shows the details of this trade:

Articles.	1917	1918
TO UNITED STATES.		
Antimony	$161,523	$97,386
Antiques	84,461	12,768
Breadstuffs: Rice	10,123,819	12,028,280
Bristles	223,850	443,078
Chemicals	335,857	461,952
Cotton, and manufactures of	41,358	13,742
Earthenware and chinaware	124,940	47,561
Edible substances	107,537	8,040
Explosives: Fireworks	77,749	19,244
Feathers	113,203	50,604
Fibers	168,329	357,065
Fish	342,394	87,978
Fruits and nuts	1,176,512	699,760
Ginger, preserved	106,140	24,487
Hair, and manufactures of	250,978	142,555
Hides	838,300	193,534
Leathers	39,160	16,654
Meat and dairy products	134,931	108,509
Moss and sea-grass furniture	26,801	....
Oils:		
Peanut	302,706	230,145
Aniseed	254,833	45,355
Cassia	124,503	124,465
Wood	....	1,186,295
Paper, and manufactures of	85,711	30,890
Seeds	41,812	10,319
TO UNITED STATES—con.		
Silk, and manufactures of	$303,243	$74,329
Spices:		
Cassia	349,968	434,329
Pepper	216,956	....
Spirits, wines	207,254	59,340
Sugar	51,497	52,359
Tea	288,416	139,987
Tin	6,670,074	10,299,203
Tobacco	461,474	132,751
Vegetables	486,294	112,392
Wolfram	93,081	4,808,358
Wood:		
Unmanufactured	314,582	201,311
Manufactured	222,497	35,290
All other articles	595,680	327,081
Total	25,548,413	33,107,246
TO PHILIPPINE ISLANDS.		
Animals: Cattle	15,321	19,185
Breadstuffs: Rice	1,584,738	1,657,724
Cement	106,261	106,540
Chemicals	96,428	105,162
Cotton, and manufactures of	944,860	575,798
Earthenware and chinaware	74,226	62,649

Articles.	1917	1918
TO PHILIPPINE ISLANDS—con.		
Eggs	$389,244	$548,323
Fibers	295,758	249,192
Fish	148,676	168,309
Fruits and nuts	177,202	210,513
Glass and glassware	25,657	13,544
Matches	228,038	149,837
Meat and dairy products	374,654	411,434
Metals, and manufactures of	49,978	17,973
Motion pictures	7,692	3,609
Oils:		
Mineral	....	379,568
Peanut	122,594	118,998
Paper, and manufactures of	66,870	54,193
Salt	124,577	49,364
Silk:		
Unmanufactured	492,939	583,594
Manufactured	87,872	74,006
Straw, and manufactures of	9,874	9,436
Sugar	18,680	12,140
Tea	25,742	20,874
Tobacco	15,672	20,562
Vegetables	186,927	258,020
Wood, and manufactures of	68,630	63,069
All other articles	918,741	795,518
Total	6,657,851	6,739,044

Articles.	1917	1918
TO HAWAII.		
Breadstuffs: Rice	$9,006	$43,085
Chemicals	22,074	23,757
Cotton, and manufactures of	4,814	2,888
Earthenware and chinaware	10,284	2,884
Edible substances	5,739	3,663
Eggs	12,765	12,163
Explosives: Fireworks	8,778	4,089
Fish	62,132	49,636
Fruits and nuts	40,927	33,834
Meat and dairy products	28,975	47,606
Metal	2,101	1,280
Oil, peanut	58,525	22,678
Paper	6,948	5,337
Seeds	4,378	4,615
Silk, and manufactures of	23,457	8,716
Spirits, wines	62,446	....
Straw, and manufactures of	5,310	2,954
Sugar	2,817	3,109
Tea	32,161	18,750
Tobacco	11,449	11,704
Vegetables	43,825	30,349
Wood, and manufactures of	9,727	3,450
All other articles	41,221	30,358
Total	509,859	366,903

In order to afford a basis of comparison between the present trade and the prewar conditions, the following table is given, showing the value of the declared exports from Hongkong to the United States and its possessions during 1913, the last normal year before the beginning of hostilities; it will be noticed that the value of the shipments to the United States increased *636 per cent* from 1913 to 1918:

Articles.	Value, 1913.
TO UNITED STATES.	
Anise seed	$1,210
Anise-seed oil	93,199
Antiques	16,112
Bristles	25,807
Camphor	3,647
Cassia	158,263
Cassia oil	67,696
Clothing	26,695
Earthenware and glassware	46,938
Embroideries	46,272
Fireworks	11,188
Human hair	128,037
Medicine (Chinese)	76,400
Metals and manufactures	33,871
Paper and manufactures	21,235
Peanuts	79,310
Peanut oil	154,861
Provisions	584,835
Rattan and manufactures	77,663
Rice	1,111,311
Sea-grass furniture	102,836
Shoes (Chinese)	48,488
Silk piece goods	18,634
Soy	51,595
Sugar (refined)	35,121
Tea	125,934
Tin slabs	1,632,213
Tobacco	51,939
Wine (Chinese)	140,200
Wood and manufactures	27,289
All other articles	205,091
Total	5,203,980

Articles.	Value, 1913.
TO PHILIPPINE ISLANDS.	
Anise seed	$422
Anise-seed oil	3,418
Cement	160,289
Cinematograph films	49,465
Clothing	10,312
Cotton piece goods	172,256
Cotton yarn	101,636
Earthenware and glassware	41,662
Fireworks	4,410
Fruits and vegetables	98,089
Lard	63,335
Matches	36,392
Medicine (Chinese)	44,462
Metals and manufactures	147,618
Paper and manufactures	10,639
Peanuts	71,261
Peanut oil	87,341
Provisions	627,470
Rattan and manufactures	21,455
Rice	1,018,198
Silk piece goods	48,000
Silk (raw)	226,253
Shoes (Chinese)	3,509
Soy	1,430
Sugar (refined)	149,498
Tea	16,979
Tobacco	8,268
Wine (Chinese)	465
Wood and manufactures	50,007
All other articles	249,722
Total	3,524,261

Articles.	Value. 1913.
TO HAWAII.	
Cassia	$321
Cement	1,034
Clothing	1,842
Earthenware and glassware	4,550
Embroideries	442
Fireworks	6,523
Human hair	14
Medicine (Chinese)	12,994
Metals and manufactures	3,591
Paper and manufactures	4,828
Peanuts	170
Peanut oil	29,302
Provisions	167,710
Rattan and manufactures	886
Rice	12,181
Sea-grass furniture	300
Shoes (Chinese)	5,528
Silk piece goods	2,381
Soy	1,140
Sugar (refined)	1,563
Tea	27,371
Tin slabs	94
Tobacco	8,901
Wine (Chinese)	49,238
Wood and manufactures	1,864
All other articles	25,128
Total	309,896

Exports from Hongkong to the United States during 1919 depend very largely upon the price of silver, which promises to be high and to tend greatly to restrict exports.

On the other hand, imports of an infinite variety are needed throughout the South China field and will be purchased to the full extent of the country's economic credit.

SHIPPING FACILITIES FOR TRADE WITH UNITED STATES.

The steamship connections between Hongkong and the Atlantic and Pacific coast ports of the United States may be summarized as follows:

TO EASTERN SEABOARD OF UNITED STATES.

The American Asiatic Steamship Co. has monthly sailings, via Suez, Panama Canal, or Cape of Good Hope as circumstances demand.

The China Mutual Steam Navigation Co. (Blue Funnel) has had seven boats in this trade sailing via Suez, Panama Canal, or Cape of Good Hope as circumstances demand.

In the summer of 1919 announcement was made of a joint service from Hongkong to New York on the part of the Blue Funnel and the American-Manchurian line of the Ellerman & Bucknell Steamship Co.—providing for a sailing at least once a month, by the Suez or the Panama Canal, at ship owners' option.

Other occasional sailings to New York number approximately 10 a year.

There has been opened in Hongkong a direct agency of the Barber Steamship Co., of New York.

TO SAN FRANCISCO.

The Toyo Kisen Kaisha has eight boats on this service and four on the South American run calling at San Francisco; approximately biweekly sailings.

The Robert Dollar Co. has three boats in addition to four or five chartered boats. The total number of sailings probably does not exceed 10 a year.

The China Mail Steamship Co. has one boat on this run, with four or five trips a year.

The Standard Oil Co. of New York has an occasional boat returning to San Francisco with space for some cargo.

W. R. Grace & Co. have a small number of boats that have been making a number of trips between Hongkong and San Francisco.

The Pacific Mail Steamship Co. (under organization of American International Corporation) has three boats giving approximately 12 sailings a year.

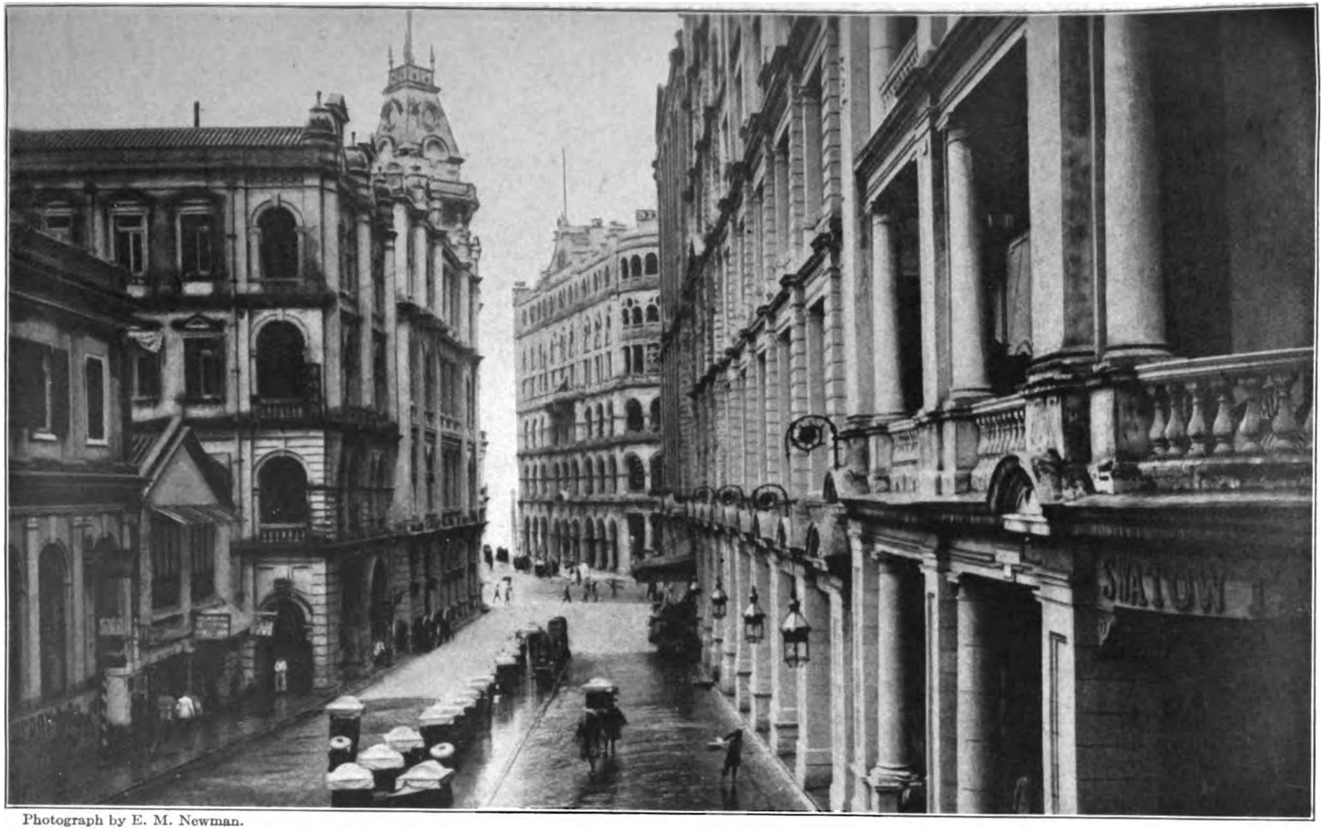
The Hawaiian-American Steamship Co. will probably have four boats between Hongkong, Honolulu, and San Francisco.

The U. S. Shipping Board has steamers sailing every 28 days from San Francisco to the Orient and touching at Hongkong.

TO PUGET SOUND PORTS.

The Ocean Steam Navigation Co. (Ltd.) (Blue Funnel) has approximately 12 sailings a year between Hongkong and Vancouver and Puget Sound.

The Canadian Pacific Ocean Services (Ltd.) has about 22 sailings a year between Hongkong and Vancouver.



Photograph by E. M. Newman.

FIG. 18.—STREET SCENE IN HONGKONG.

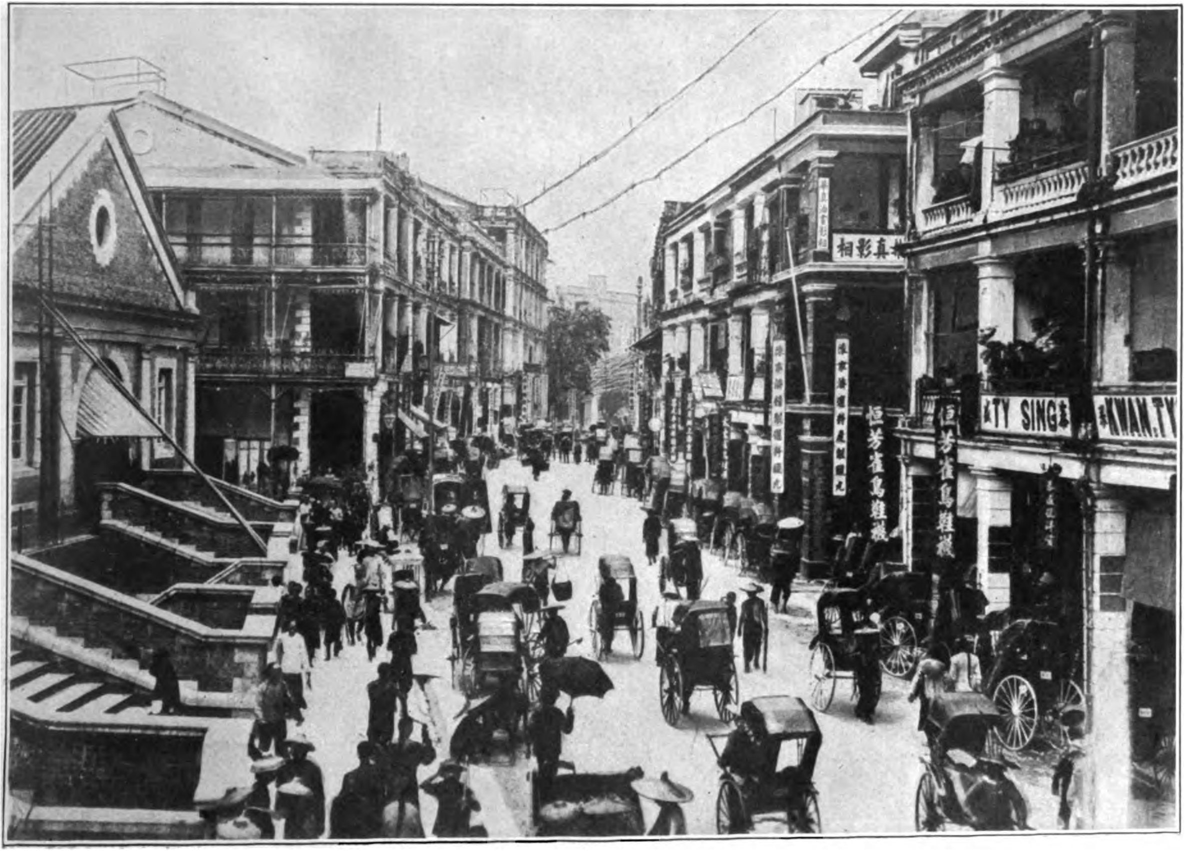


FIG. 19.—ROAD IN CENTRAL PART OF HONGKONG.

The Osaka Shosen Kaisha has 24 sailings a year to Puget Sound ports.

The Nippon Yusen Kaisha has 24 sailings a year to Seattle and 4 boats from Hongkong, Manila, and Japanese ports to New York via Panama.

The Royal Mail Steam Navigation Packet Co. ordinarily has about 24 sailings a year to Vancouver and Seattle.

The U. S. Shipping Board has steamers sailing about once a month from Seattle to the Orient and touching at Hongkong.

A number of tramp steamers are also on the run to Seattle, but the departures are irregular.

FACILITIES FOR TRAVEL.

Hongkong is well provided with hotels and boarding houses, and in a general way they are considered to be quite good. The rates per day in the leading hotels average $7 or $8 gold, and monthly rates for two persons average about $125 to $150. The best season for visiting Hongkong and South China is from October to the end of February or the middle of March. The traveling accommodations by sea are excellent, and in normal times quick connections can be made at Hongkong for the Straits Settlements, India, Europe via Suez, the Philippines, and Australia. There are daily boats for Macao and Canton and three or four sailings weekly to Manila. The Kowloon-Canton Railway has good service to Canton, the run of 100 miles taking, on express trains, something less than five hours. The hotels in Hongkong have launches to meet all incoming steamers. Thomas Cook & Sons have a launch. The American Express Co. is located in Hongkong and pays particular attention to the tourist traffic and the forwarding of baggage to America. All Americans traveling to the Orient should have in their possession a passport and other documentary evidence for identification. Passengers, before leaving the United States, will find it a great help if information is obtained from the proper customs authorities regarding the amount of goods, curios, and the like that can be taken back with them without duty charges.

TRADE ORGANIZATIONS IN DISTRICT.

The chambers of commerce in the Hongkong consular district are the Hongkong General Chamber of Commerce, the Chinese Chamber of Commerce, and the Association of Exporters and Dealers of Hongkong.

The Chinese trade guilds are: Hongkong Money Dealers' Guild, comprising the native banks; Wa On Club, or Californian Merchants' Hong, comprising the firms that export goods to the United States; Business Association of the Commission Agents' Guild; Copper and Iron Dealers' Guild; Silk and Satin and Piece Goods Guild; Min Yik Kung Wui, Cotton-Yarn Dealers' Guild; Ginseng, Deerhorn, and Drugs Guild; Foreign Goods Import and Export Guild; North and South Merchants' Guild, comprising firms doing business in imports and exports with Northern Chinese ports, French Indo-China, Straits Settlements, and Java; Raw-Drug Dealers' Guild; Rice Guild; Salt-Fish Wholesale Dealers' Guild; Vermilion and Dye Dealers' Guild.

AMERICAN INTERESTS.

Since the outbreak of the war American trade in the Orient has increased enormously in many lines, particularly in those formerly supplied by Germany, Austria-Hungary, and Belgium, and in certain other classes of merchandise, notably iron and steel, which Great Britain and other European countries have been unable to supply fully because of the situation in manufacturing circles in these countries. Perhaps the most notable development in the oriental trade of the United States has been in iron and steel products, certain lines of hardware, electrical accessories, window glass, glassware, chemical products, tin plate, lead, quicksilver, nails, wire rope, belting, and related articles.

The American manufacturers are now in the Chinese markets and in many lines have obtained a strong foothold, with encouraging prospects for the future, but the restoration of peace in Europe and the return to normal conditions will mean the necessity of meeting competition (which will be very keen) and the natural desire and pressing economic need of those countries, now practically out of the Chinese market, to return with a strong determination to resume their proportion of trade. The United States has obtained trade in many lines through the sheer inability to obtain supplies from former sources, and under the circumstances it seems imperative that American firms should use every effort to consolidate their trade.

Irrespective of the abnormal conditions prevailing in Europe, the Chinese trade during portions of certain recent years was below normal in some lines and above normal in others, because of purchases by Japan of war material for Russia; but upon the resumption of a settled status of affairs there will be an increased demand for many lines of goods which the United States should supply advantageously even in the face of European competition. The purchasing power of the Chinese people is small individually, but the volume of trade collectively in the cheaper grades of goods will be tremendous, and it only remains for Americans to determine whether they will meet these conditions as well as or better than European countries. In a general way the stocks on hand in Hongkong and South China and in the Orient generally are much depleted, and the opportunity for American manufacturers and exporters to redouble their efforts to capture this trade is unprecedented. It is unfortunately true that many American manufacturers who now have a considerable export trade to China are in no way attempting to consolidate their trade and intimate that when the domestic trade increases the exports to China will be discarded for the apparently more profitable trade at home, with fewer risks and less unusual demands. Other exporters are not in a position to care for the volume of trade in China offered at present, but those who have obtained a foothold ought to follow up the advantages already obtained even in the face of domestic demands or the business in South America.

GENERAL TRADE SUGGESTIONS.

One of the important features of American development in foreign trade in recent years, and particularly since the outbreak of the war, is the increasing disposition of American concerns to establish their own branch houses or send out their own agents into the foreign field. This feature is particularly notable in the South China trade, of which Hongkong is the distributing and financial center. So far as China is concerned there is a greater tendency on the part of American firms to deal more directly with Chinese firms, thereby avoiding middlemen, but the experience of other countries is perhaps not altogether favorable to direct connections with the Chinese. The sending out of representatives by American firms has been much more common than formerly, and these men have been responsible for much of the advance in American foreign trade. They are in a position to get into direct touch with the ultimate consumer and thus can inform their principals of the real needs of the market. In respect to credits there was formerly a disposition on the part of American firms to insist upon stringent credit terms, but it seems apparent that they are more inclined these days to meet the wishes of the importers in the same way that other countries do.

Suggestions as to the best method of reaching the Chinese market through Hongkong offer a field for a variety of comment and advice. In general the American manufacturer and exporter must arrive at the proper solution of the best means for extending trade in this field in accordance with the nature of the article to be exported, for in some respects the conditions vary in China more than in other parts of the world. It is thought that no field in the world's trade requires more preliminary investigation and personal attention than that of China, and a study of the best methods to be finally adopted is of primary importance.

There are certain essential facts to be learned in the Chinese trade before any attempt should be made at all. In the first place the Chinese are essentially a very conservative people and in a general way are not at all inclined to buy abroad articles that are not within their knowledge; in other words, it is an extremely difficult undertaking to interest the Chinese in articles that are not in every respect utilitarian. Since they are such a practical race, trade novelties of unknown selling power and adaptability to the limited means of the people can not readily find a market, and without a thorough demonstration of the practicability of such articles and proof of future need the Chinese can not be induced to initiate their introduction. Again, the low individual purchasing power of the millions of Chinese must not be lost sight of. To express this fact in another way, it is estimated that the direct purchasing population of China is only about 8,700,000 people (the estimated population of the 46 treaty ports) out of a total estimated population of 445,873,000. The total European population of China in 1915 was 182,404. For 1912 the value of the exports from the United States to China was about $23,000,000, a very small percentage of the total import trade, which amounted to about $360,000,000. It must not be forgotten, however, that China is a country of great natural resources; its mineral riches are very largely undeveloped, and the railways reach only well-known regions, following generally and imperfectly the lines of communication and trade that have been in existence for ages. It remains to be seen whether China will go through a period of development like that of Japan, but in any event American manufacturers are particularly well qualified to meet the demands of China in the future. It seems evident that sooner or later China must come into its own, and when that time arrives the possibilities are beyond present contemplation. This process will, however, be necessarily slow. Manufacturers and exporters should understand that American goods stand well with the Chinese, and although there is a natural tendency among the British and other foreign firms to foster their own trade in every way possible, it is also true that the Chinese are desirous of buying in the cheapest and best market and that the origin of goods is immaterial to them if all other things are equal.

METHODS OF ENTERING MARKET.

There are three more or less distinct methods of entering foreign trade, and the question arises as to which of these is best adapted for the Chinese field, all things being considered. The recognized methods are: First, selling direct—that is, the direct exploitation of the foreign market through salesmen, branch houses, exclusive dealers, or through the mails, the last-named method not being very effective except as an adjunct; second, selling through a manufacturer's agent; and third, through export commission houses. All these methods are employed in the Hongkong trade, and in the case of American manufacturers and exporters the general custom in the past has been to grant exclusive agencies to American or foreign firms established either in Canton or Hongkong, principally the latter place. In a general way it appears to the writer that the best method to adopt is the first, but naturally the class of goods in each case must determine to a certain extent the final selection of ways and means of entering the Chinese markets. Previous to the European conflict the general practice of American firms was to place their agency in the hands of some firm with exclusive rights for Hongkong and South China, but now the tendency is to establish their own connections. This method is, of course, impossible for many manufacturers in the United States because of their inability to finance their undertaking alone, and in that case recourse should be had to export agents or the granting of exclusive rights to American firms now established in the Orient. British and other European firms have their own establishments in China, and although they are willing and anxious to represent American houses it is very rarely that an American house ever represents either British or Continental firms in the Orient. It is not implied that foreign firms are not fair and just in their treatment of American goods, but national pride and a natural desire to foster and favor the trade of their respective countries (notably in the case of Japan, the most energetic nation operating in China) often retard the legitimate extension of American trade.

The export commission houses in the United States are a valuable adjunct in trade propaganda in the Far East, and they are in a position to serve advantageously many firms that are not strong enough to finance their own undertakings. These houses have qualified men traveling abroad and are in touch with foreign markets in general. If a manufacturer desires to use a commission house located in Hongkong or China proper, it is necessary and essential to assist it in every way to introduce the goods properly and efficiently, supplying liberal samples and in some lines allowing an appropriation for advertising. There will be no necessity to make a study of customs rules and regulations in Hongkong, since it is a free port. The import duty into China is, in general, 5 per cent ad valorem.

ADVERTISING AND SAMPLES.

In connection with the selling campaign in foreign countries the question of advertising must be studied in order that the needs and requirements may be met at the beginning. It is not believed that advertising in the native language is as important as in most other countries. Catalogues, photographs, and descriptive literature do not appeal to the native population of China in the same way as elsewhere, although it is not implied that advertising in China is a waste of money, for along certain lines it is certainly beneficial. To the average Chinese buyers the splendidly illustrated catalogues do not appeal particularly, for they are unable to grasp the significance of these in the same way as purchasers in the United States, where the people have been taught to study and understand this method of reaching the people. The Chinese will buy articles other than those that are standard and well known only through samples placed before them. This is a definite requirement on their part, and it will be found almost impossible to obtain success in any other way than through actual demonstration. The requirement of many American manufacturers to be paid for samples is the means of stopping all possible business, and whatever the method employed by American firms in the Chinese trade they must be willing and glad to furnish all needful samples without charge.

FINANCING OF SHIPMENTS.

As regards credits, which constitute the very marrow of the export trade, there are a number of ways of financing the export shipments. They may be enumerated as follows: (1) Cash in New York or cash with order; (2) cash against documents; (3) sight draft; (4) 30 days' sight, 90 days' sight, and 120 days' sight; (5) long-time credits with interest; and (6) open accounts or open credits. So far as the trade in China is concerned it is essential for steady development to adopt the long-term credit, as that is and has been the usual method, and the American manufacturer must be prepared to finance his shipments on the basis of 90 days' sight or longer. It can not be argued that the present conditions under which foreign buyers are willing to pay cash in New York will continue after affairs in Europe are again on a normal basis. The conditions of foreign trade at present are extraordinary.

GENERAL CONDITIONS GOVERNING AMERICAN TRADE IN CHINA.

In entering the Chinese market it is essential that a preliminary study of the trade be first made in order to determine whether a given commodity is suitable for the Chinese. In South China it would be useless to attempt to introduce stoves for heating purposes, or the modern American plow for agricultural purposes. Heavy woolen goods would find no market there, but light fabrics suitable for the Tropics would have a steady sale. Articles that deteriorate in transportation must not be considered for this market unless suitable packing can be effected—for example, hermetically sealed tins for crackers, candies, and the like. Therefore a careful study of the demands must be made before one attempts to participate in the Chinese trade.

The tendency on the part of American firms to expect immediate results is one of the chief causes of poor returns. The Chinese can not be hurried, and often the native buyers will refuse a cheaper and better article, similar to that which they have been purchasing, simply because the "chop" or distinguishing symbol is new and strange. It should be the aim of every manufacturer to introduce his goods effectively, establish a reputation, and familiarize the Chinese with his trade-mark; it is almost certain, then, that a profitable trade will follow. It takes time, patience, perseverance, and sometimes a very large outlay to obtain Chinese trade, but when a concern has established a reputation for just business dealings and consistent character in goods, a lasting market is assured if prices and quality are acceptable. In the establishment of connections through agencies, particularly with foreign firms, American houses have often failed to realize that it is necessary to establish their own financial standing before they can ask for representation in Hongkong and especially before they can ask the local commission firms to establish their credit standing. Hongkong business houses can not be expected to tie themselves up with firms concerning whose responsibility they know little or nothing; and it follows that local houses will hesitate to seek connections in the United States and forward samples, quotations, and similar information without some indication of the nature and extent of the American houses, their stability and general reputation.

MUKDEN CONSULAR DISTRICT.

By Consul General P. Stewart Heintzleman.

LOCATION AND AREA.

The greater part of the Mukden consular district is situated in Fengtien Province between latitudes 40° and 44° north, corresponding to Pennsylvania, New York, and the New England States. Fengtien is the southernmost of the three Provinces constituting Manchuria. Mukden, the capital of Manchuria and the seat of government of Fengtien Province, lies in 123° east longitude and 42° north latitude, so that it is practically on the same parallel as Boston and Chicago.

The area of this district is about 88,900 square miles, or twice the size of Pennsylvania. It comprises the Province of Fengtien, except the "circuit of the three eastern marches" (Antung consular district) and the leased territory of Kwantung (Dairen consular district), and includes also the southern portion of Kirin Province.

POPULATION.

The population is about 10,156,000, or 114 persons to the square mile, the district thus having about the same density of population as Ohio. It is estimated that not more than a tenth of the population consists of the original stock of Manchus, the great majority being immigrants from Shantung and Chihli and their descendants. It is estimated that three-fourths of the population is rural.

PHYSICAL FEATURES.

The western part of the district is made up of the valley of the Liao River and its tributaries; the eastern part is mountainous, like parts of New York and Pennsylvania. To the southeast lies the Changpei Mountain Range, from which radiate many branch ranges. This mountain range has peaks 3,000 to 6,000 feet above sea level. Mukden is 320 feet above sea level on a flat agricultural plain. This plain, which is 45 miles long and 45 miles wide, has an area of 2,000 square miles.

CLIMATE.

The climate is not affected by oceanic currents, and the wide plain has no protection from the winter blasts that sweep down from Mongolia. The temperature sometimes rises in summer to 96° F., and falls in winter to 25° F. below zero, yet the atmosphere is so dry that the sensations rarely indicate such extremes. The rainfall, including snow, is 33 inches, and is spread over 70 days. The snowfall is not heavy. On the whole the winter months are favorable to health. The atmosphere is clear, dry, and bracing. As spring approaches, the changes of temperature are great and sudden. In March high south winds prevail, at which season duststorms are frequent. In summer the atmosphere is very dry. The heat is greatest toward the end of July—the temperature during the day

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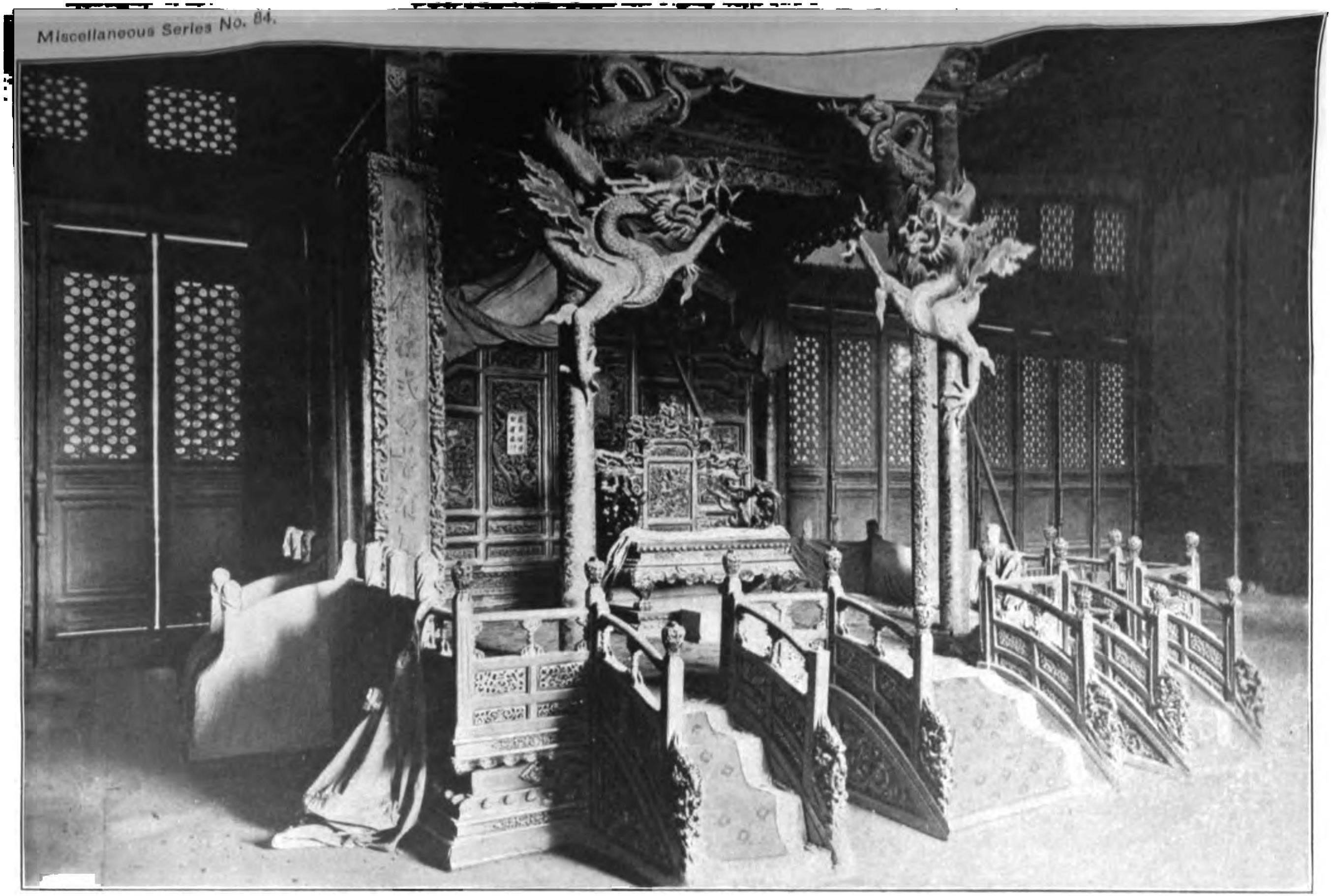


Photograph by E. M. Newman.

FIG. 20.—THE DRAGON THRONE UNDER THE TSING DYNASTY.

ranging generally from 91° to 96° F., but during the night being rarely above 75° F. The heavy rains usually begin early in August, and toward the end of the month the weather is cooler.

POLITICAL SUBDIVISIONS.

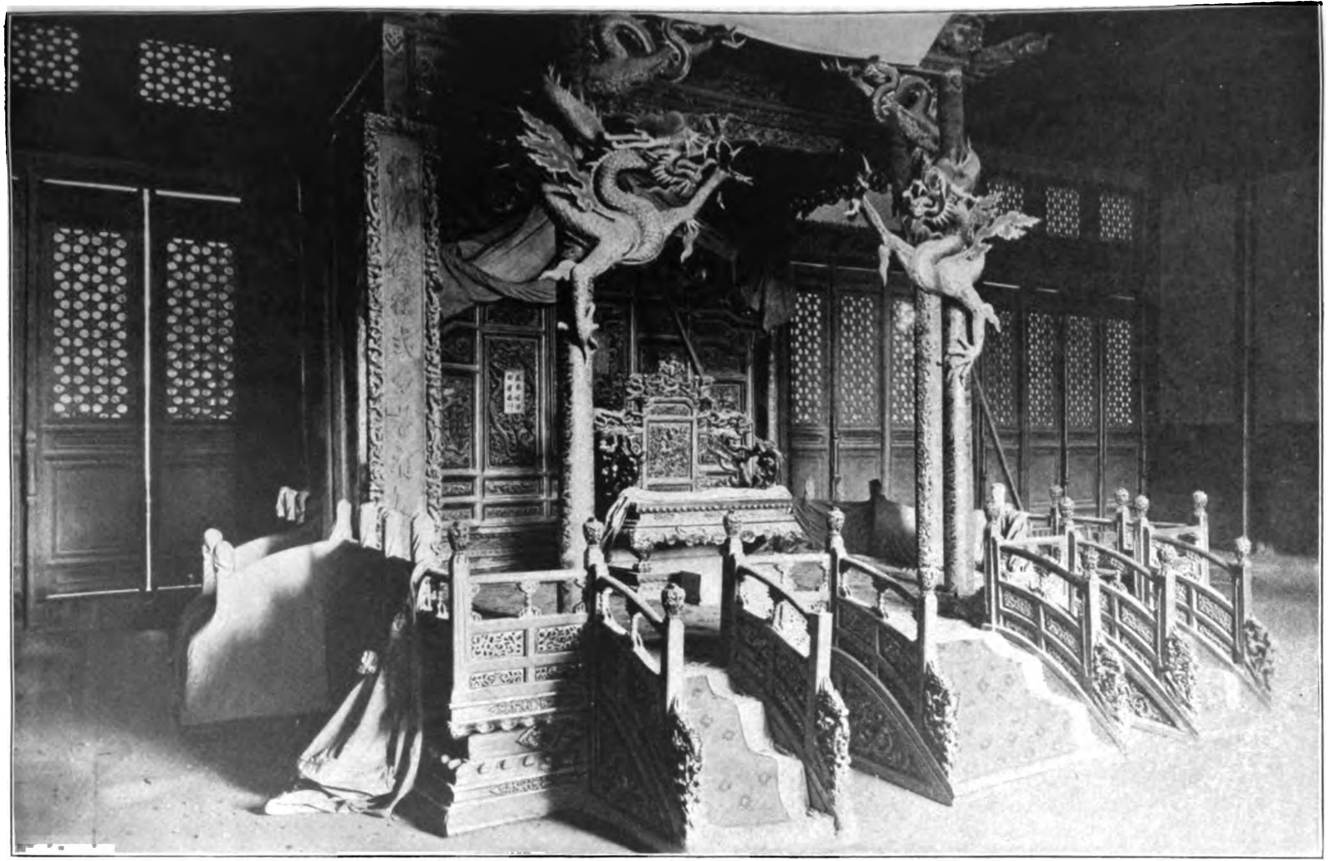
The military governor general for all Manchuria resides at Mukden. There are also in Mukden a civil governor for Fengtien Province and six provincial commissioners—interior, finance, education, justice, foreign affairs, and bannermen's affairs. In addition, a "taoyin" is in charge of a bureau of agriculture, industry, and commerce, while another officer of the same rank is in control of the police administration, which is merged in the department of interior. There are 53 magistrates in Fengtien Province. Questions affecting foreign interests at Mukden are dealt with directly by the commissioner of foreign affairs, who is also special delegate of the foreign office at Peking. Special delegates are also appointed at Newchwang, Liaoyang, and Tiehling. Kirin is the seat of the provincial government of the like-named Province, and in that city, as well as in Changchun, there is a special delegate for foreign affairs. Owing to the many special rights granted Japanese subjects in the Sino-Japanese treaty respecting South Manchuria and Eastern Inner Mongolia, signed May 25, 1915, the provincial government has established at Mukden a separate bureau for the purpose of dealing with the questions constantly arising thereunder.

EDUCATION.

GENERAL SITUATION.

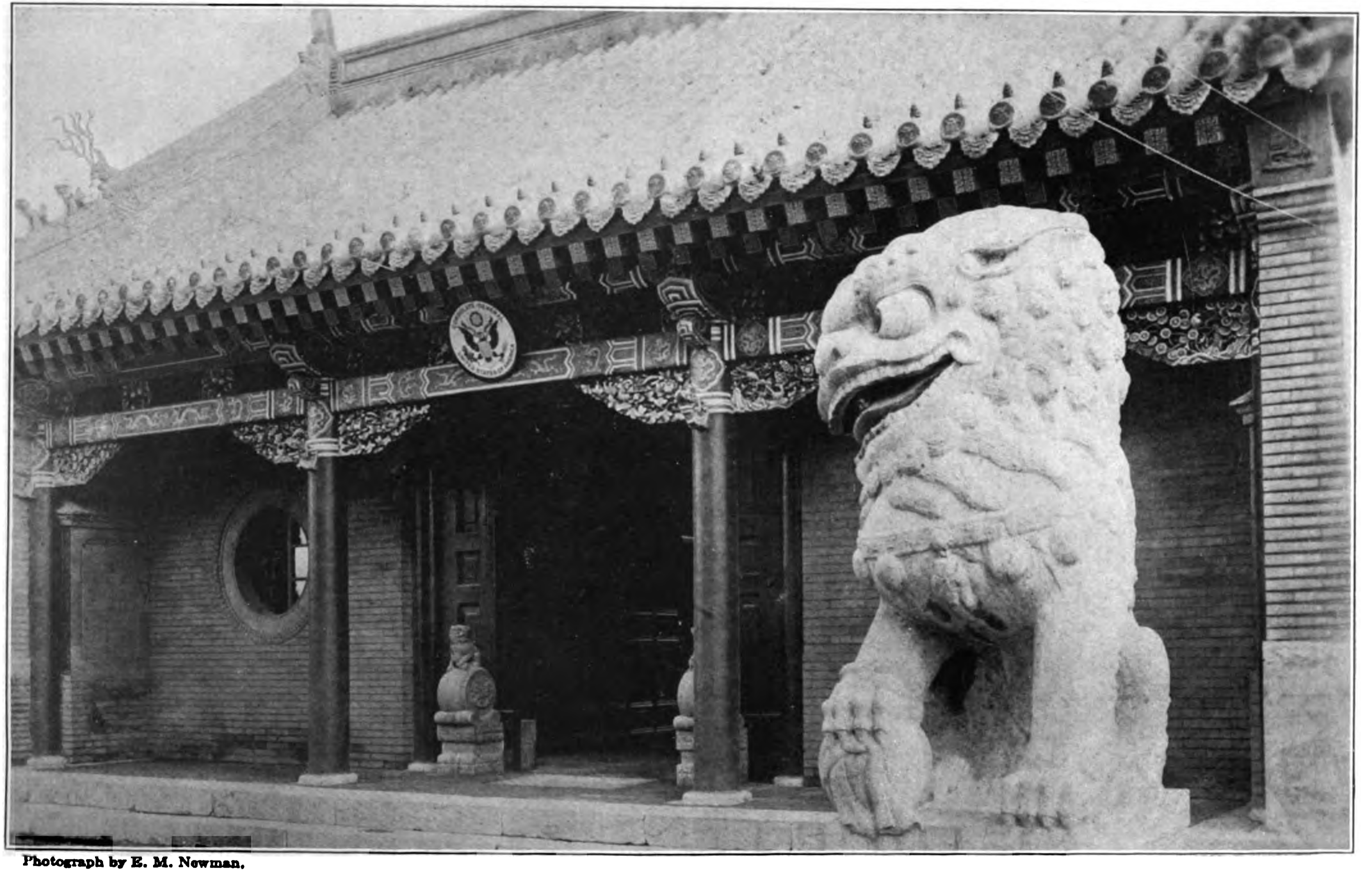
Before the promulgation of the imperial edict of September 2, 1905, inaugurating educational reforms, inadequate funds and the absence of a fixed policy militated against the successful establishment of government schools. After the issuance of this edict, however, education received an impetus. Several colleges and many schools (chiefly elementary and middle), including normal and elementary schools for girls, were established. Candidates for official employment were required, in addition to possessing a knowledge of the ancient classics, to have some acquaintance with the modern science of government. Many young men went to Japan. The antiquated schoolmaster was dismissed. A vast educational scheme, embodying the new aims and methods, was framed by the government. Primary schools sprang up. High schools and training colleges for men and women were established. Schools of law, science, agriculture, industry, mining, surveying, and languages were founded. An educational tax was imposed on the people. Temples were converted into seats of learning. New school buildings were erected. Expert teachers from Europe, America, and Japan were engaged. To encourage students to enter the schools, tuition, board, and lodging were given free.

In the city of Mukden the government opened a "depot of maps and books," in which textbooks, classified according to subject, were arranged for inspection and sold at prices lower than those in publishers' lists. Public libraries and museums were instituted. Elementary schools were opened throughout the Province, and a middle school was started in each large city. The opinion that Chinese women did not need an education underwent a transformation, and



Photograph by E. M. Newman.

FIG. 20.—THE DRAGON THRONE UNDER THE TSING DYNASTY.



Photograph by E. M. Newman.

FIG. 21.—ENTRANCE TO UNITED STATES CONSULATE GENERAL, MUKDEN.

the advantages to be gained by their receiving a fair share of education were recognized. The subjects taught in these schools cover a wide field, embracing morals, Chinese literature, history, geography, mathematics, natural science, political economy, natural history, geology, physiology, political science, psychology, criminal law, civil law, constitutional law, international law, etc. Much remains to be achieved in the matter of enforcing discipline and of insuring more thorough instruction. Students are graduated with insufficient qualifications. About 90 per cent of the population of the Mukden consular district is illiterate.

NATIVE SCHOOLS AND HOSPITALS.

In Mukden there are 32 schools of various descriptions (including 6 for girls), with more than 10,000 pupils. According to figures supplied by the commissioner of education, the annual cost to the Government of the schools in Mukden is about $300,000 United States currency. The statistics for 1915 of the various kinds of schools throughout Fengtien Province are as follows: 4,737 primary and intermediate schools for boys, with 187,155 pupils; 33 normal schools for boys, with 1,819 pupils; 14 middle schools for boys, with 976 pupils; 8 agricultural schools for boys, with 290 pupils; 6 industrial schools for boys, with 216 pupils; 10 commercial schools for boys, with 365 pupils; 217 primary and intermediate schools for girls, with 10,341 pupils; 14 normal schools for girls, with 785 pupils; total, 5,039 schools, with 201,947 pupils.

The total expenditure on education in 1915 for the whole Province was $1,214,800, the actual cost to the government having been $928,885. It should be stated, however, that since the revolution of 1911 educational work in this Province has suffered greatly through lack of funds to pay the salaries of instructors and for the maintenance of school buildings and equipment.

There is a large Chinese hospital in Mukden under the direction of a foreign-trained doctor, where much useful work is being performed.

MISSIONARY SCHOOLS AND HOSPITALS.

The activity of missionary societies in the educational field is a potent and efficient factor in the progressive movement. In no Province of China have these societies made more rapid progress than in Fengtien. The people, bred in habits of self-support, have now come to take a large share in the work of maintenance and expansion. At each of the missionary centers—some 30 in number—there exists, besides primary schools, a high school where pupils are educated up to the standard required for the entrance examination of the art college, called the Manchurian Christian College, opened in Mukden in 1902 under the auspices of the Scotch and Irish missionaries. A girls' normal college was established in Mukden in 1911, where the education of the Manchurian girl reaches a high point. The Presbyterian Church in Manchuria maintains 14 boys' middle schools and 125 boys' primary schools, with 8 girls' middle schools and 73 girls' primary schools. The French Catholic mission in Manchuria maintains a seminary in Mukden for training young Chinese priests, and also an orphanage where abandoned children are fed, clothed, and educated.

In 1883 the United Free Church of Scotland sent out the pioneer medical missionary. In 1887 a dispensary and a hospital were erected. These buildings were burned in 1900. A well-equipped hospital, with 140 beds, was erected on the old site and opened in 1907. Returns show that there are now 45,285 out-patients and 717 in-patients, and that 1,214 operations are performed annually. In 1908 a scheme was initiated for the training of dispensers at Mukden. Medical mission work is now being carried on in eight other places. The mission completed in 1911 a large building of four stories for a medical college, which adjoins the hospital. The staff consists of 9 professors and 3 lecturers. The college accommodates 106 resident students. In 1896 the first medical missionary woman arrived in Mukden. There is now a large hospital with accommodations for 90 patients, and returns show that there are 47,219 out-patients and 587 in-patients, and that 881 operations are performed annually. The mission has now well-equipped women's hospitals in charge of women doctors in 11 other important towns.

JAPANESE SCHOOLS AND HOSPITALS.

Education in the Japanese railway area at Mukden has progressed steadily since 1908, when a primary school was opened. A supplementary school was established in 1910. There are now about 500 children receiving their education in these schools. The South Manchuria Railway Co. maintains a medical college at Mukden, opened in June, 1911, with the Chinese military governor as honorary president and a few prominent Chinese officials as consulting members. The faculty includes specialists of acknowledged ability and experience in medical science and other branches of study related thereto, such as physics, chemistry, mathematics, natural history, etc. The faculty comprises 21 professors, 3 assistants, and 8 lecturers. The course is divided into the preparatory and the regular. The preparatory course, limited to 100 students, extends over two years. The regular course, limited to 200 students, is subdivided into medicine and pharmacology, requiring four years and three years, respectively. The post-graduate course, limited to 20 students, occupies more than a year.. The preparatory course is designed to teach Chinese students the Japanese language and to impart general knowledge. In the case of Japanese students, those who have finished at a middle school may be admitted to the regular course. The college has an enrollment of 95 Japanese students and 162 Chinese students. The cost to a student for a course in this college is $5 gold per month for the preparatory course and $8.50 gold per month for the regular course. The college stands on a plane equal to the medical colleges in Japan under Government management. It is organized according to the Imperial College act of Japan. Its graduates are entitled to every privilege and qualification accorded the graduates of the colleges in Japan.

A large, well-equipped, and up-to-date hospital is maintained at Mukden by the South Manchuria Railway Co. It was formerly a Japanese military hospital and was taken over in 1907. A new office building and sick rooms with 250 beds were built in 1909. The total number of patients treated annually increased from 9,781 in 1907 to 134,171 in 1915. There are 28 Japanese doctors and 82 nurses, in addition to 87 other employees. Besides the railway hospital, the Japanese maintain in the western suburb of Mukden a branch hospital of the Red Cross Society of Japan. At this hospital skilled attention is given to all applicants at a particularly low charge. At all the other large towns of this district along the South Manchuria Railway hospitals are maintained by that company as well as by the mission societies.

Modern school supplies are used only to a limited extent, while modern hospital equipment is largely employed. In time the use of foreign school and hospital supplies should be extensive. This applies especially to the hospitals.

AGRICULTURE.

The total area of arable land in South Manchuria is estimated at 7,100,000 acres. Around Mukden land is divided into small fields, in which farming is carried on in the intensive manner practiced in China proper. In Fengtien, kaoliang (*Sorghum vulgare*) and millet are the staple foods, meadow land and pasture crops are nonexistent, and live stock are reared only as beasts of burden. The soya bean is the most important of the crops. The foreign demand for this product and the rise of prices during recent years are phenomenal in trade annals. It has brought much wealth to the country and supplies the means of purchasing foreign goods. Kaoliang and millet are grown for home consumption; the former supplies food for man and beast and is used for fuel and thatching. Samshu, a Chinese alcoholic beverage, is also distilled from kaoliang. Products of minor importance are wild silk, barley, upland rice, tobacco, hides, pelts, and maize, of which a poor quality is especially cultivated.

The number of people engaged in agriculture in Fengtien Province is estimated at 2,520,145, and the total area under cultivation at about 4,500,000 acres, apportioned as follows: Kaoliang, 2,166,666; beans, 1,300,000; millet, 433,333; the remaining acreage being devoted to wheat, barley, maize, tobacco, garden truck, etc. The annual yields, in bushels, of the three principal crops are about as follows: Kaoliang, 76,526,643; beans, 40,716,000; and millet, 9,099,993. The annual yield of wheat for all Manchuria is estimated at 60,000,000 bushels. The annual yield of barley in this district is about 128,369 tons. The production per acre, in bushels, of the chief crops of this district is as follows: Kaoliang, 35.3; beans, 31.6; wheat, 23.3; maize, 23.3; barley, 28; and millet, 20.3.

The planting and harvesting seasons are the same as in the northern United States. The method of tillage is very crude. The only tillage tools commonly used are the crude shovel-shaped plow, a land roller, and a hand hoe. In spring the farmer shovels up, with his primitive plow, 5 or 6 inches of earth into a ridge; on this he drops the seed and then rolls the ridge. The thrashing process consists in spreading out the crop on a clay floor and beating out the grain with flails, tramping oxen, and stone rollers. The abundance of the crop is due to the remarkable fertility of the soil, and is in spite of the methods of the farmer. The present methods of agriculture can never fully realize and, in fact, actually diminish the value of the soil. They deprive the soil of humus, and are nondiversified, or, in other words, there is no crop rotation. This condition is aggravated by the continual raking away of the stubble for fuel, thus depriving the soil of organic matter, while the scarcity of animals makes the price of manure prohibitive. Horses, mules, donkeys, and oxen comprise the draft animals of the Manchurian farmer. Manchurian horses are small but can stand prolonged work.

The live stock consists of horses, mules, donkeys, cattle, sheep, pigs, and goats. The estimated number of live stock in Fengtien Province is as follows: Horses, 124,008; cattle, 62,060; mules, 124,242; sheep, 600,000; and pigs, 1,925,260. The estimated number of horses, cattle, and sheep for all Manchuria is as follows: Horses, 2,200,000; cattle, 1,837,000; and sheep, 2,620,000.

Soya beans furnish material for bean oil, bean curd, and bean sprouts, besides serving as a food when boiled. Bean oil is used locally for cooking and as an illuminant; the bean oil for export is employed in soap and olive-oil manufacture, while in the mixing of paints it serves as a substitute for cotton and linseed oils. Bean cake is used as fertilizer and as food for cattle. About 70 per cent of the output of beans is annually exported, the rest being consumed locally. The annual production of bean cake and bean oil in the Mukden consular district is estimated at 433,992 and 54,279 tons, respectively.

It is estimated that one-eighth of the beans exported are shipped to Hongkong, the Straits Settlements, and Europe, three-eighths to South China ports, and the remaining four-eighths to Japan. Of bean oil, Europe, China ports, and Japan are buyers in about equal proportions. A somewhat smaller quantity goes to the United States. Bean cake exported from Manchuria is marketed almost exclusively in Japan, Taiwan, and South China.

During the last decade the provincial government expended a considerable amount of money in establishing institutions to foster agriculture and forestry in South Manchuria. Agricultural experiment stations, agricultural schools, forest-tree nurseries, and experiment farms were organized. Owing to various causes, these are now either closed or suspended. A large experiment station and agricultural school was established at Mukden; it possesses about 250 acres, was well equipped with buildings for farm work, and has classrooms and dormitories for 60 students. It was also well stocked with foreign cattle, sheep, and swine. It suffered much from being on unsuitable soil and from having no unified plan of management. On the teaching staff are three Japanese. The Mukden Forestry Department has about 700 acres and a number of young trees growing there. There is a government live-stock farm at Chenan, near Jaoyangho, on the Peking-Mukden Railway, possessing 15,000 acres, which was well stocked with foreign horses, cattle, and sheep. There is a fruit nursery at Kwangning, where American apples, pears, peaches, cherries, plums, grapes, raspberries, and blackberries were successfully grown.

MINERALS AND MINING.

The latent mineral resources of Fengtien Province are believed to be considerable. No serious attempt, however, has yet been made to develop them. Gold, silver, copper, coal, lead, iron, asbestos, and soapstone are mined in the Province. These mines are worked by Chinese companies, each with a capital seldom exceeding $6,000. Modern machinery is not employed and the methods are very primitive. According to a detailed list supplied by the local bureau of mines, gold is placer-mined in eight districts; silver and copper are produced in one and four districts, respectively. Coal is mined at 36 places, but in a rather crude way, some of the mines being merely outcrop and others rough headings driven into the hillsides. Lead mines are worked in six, and iron in three, localities. Asbestos is believed to be widely distributed, though the list mentions the Siuyen district as the only place where it is actually being obtained. Soapstone exists in large quantities near Haicheng, an old town just north of the boundary of the Kwantung Leased Territory. Within the past two years small quantities have been mined for export. There are 122 unopened mines, consisting chiefly of coal, copper, silver, and asbestos. Exploitation of the mineral wealth of this district by modern methods has been confined almost wholly to coal mining under Japanese supervision. Of the coal mines, the one at Fushun is by far the most important and is owned and operated by the South Manchuria Railway Co. With the Fushun mine are connected ammonia and coking plants. The output of coal from the Fushun pits for the year 1915 amounted to 2,056,194 tons. The daily output of ammonia and of coke is about 11 tons for each product. Next in importance after the Fushun mine are the coal and iron mines at Penchihu, a Sino-Japanese enterprise. The output of Penchihu coal for the year 1915 was 275,113 tons, while the daily production of pig iron is reported to be 150 tons. The output for 1915 of coal from the Yentai mine, owned and operated by the South Manchuria Railway Co., was 74,308 tons.

Mining affairs in Fengtien Province are under the administration of the mining bureau at Mukden. For the permits granted natives a fee of about $30 gold is charged. There is an additional charge of about $0.36 gold per mile to cover the traveling expenses of the deputy dispatched from Mukden to inspect and to ascertain whether there are objections on the part of the people of the locality to the granting of permission to commence operations. Mining grants to foreigners must be sanctioned by the central Government. As a rule both the mining bureau at Mukden and the central Government at Peking are disinclined to grant concessions to foreigners, except as security for foreign loans, and they generally discourage mining schemes where foreigners are concerned. By the Sino-Japanese treaty of May 25, 1915, Japanese have secured the additional right to work mines in nine specified districts in South Manchuria—one iron and five coal mines in Fengtien Province, and one gold, one coal, and one iron-and-coal mine in the southern portion of Kirin Province. Prospecting is now in progress. It is believed that American capital seeking investment in mining enterprises in South Manchuria would find its prospects of success enhanced by cooperation with the Japanese.

The South Manchuria Railway Co. does a large export business in Fushun and Yentai coals; while the whole output of the iron mine at Penchihu is sent to Japan.

The mines at Fushun, Yentai, and Penchihu are being operated by modern methods and with foreign-made machinery, the bulk of which came from Germany and America. The primitive methods employed in the mines worked by the natives are to be attributed chiefly to lack of capital.

COMMUNICATIONS: INTRODUCTION.

All the trade centers of the Mukden consular district possess direct transportation facilities by rail or water with the important ports of China and Japan, and through the Trans-Siberian route with Europe. Mukden is admirably located to serve as a distributing center. It is connected by rail with Dairen, Antung, Newchwang, and Peking, and has also direct outlets at Chinwangtao and Tientsin. Outlets are also found through Vladivostok and Irkutsk. About half-way between Mukden and Harbin is the town of Changchun, an important distributing center for trade to and from Kirin, Heilungkiang, and Eastern Mongolia.

WATERWAYS.

The only waterway in this district is formed by the Liao River and its tributaries. The river rises northeast of Dolon-nor in Mongolia in the Great Khingan Mountains, where it is known as the West Liao. It flows at first from west to east, forming the boundary between Chihli and Mongolia. Entering Manchuria it turns to the south and finally empties into the Gulf of Liaotung. The river is navigable for junks in the flood season throughout its whole course in Manchuria, so that much of the produce of the country west of the river and of Eastern Inner Mongolia is transported over its waters. In its lower part, the channel is fairly deep and can be used by coastwise steamers as far as Newchwang. The whole river, however, is frozen over during the five winter months. Mukden, Tiehling, Liaoyang, Hsinmintun, Fakumen, and Tungkiangtze are situated in proximity to the river and its branches. The junk rates are different for the up and down journeys and also vary with the volume of water in the river. When cheapest, in summer, the rate is about one-third of the railway charge (by train, the tariff per ton between Tiehling and Newchwang is $2.25, while by junk 1 ton between the same points costs $0.75 gold). At low water the rate rises to about two-thirds of the railway fare. The up-voyage takes a much longer time than the railway journey and costs almost as much. While the competition of the railways, added to the neglect of the Liao River and the absence of conservancy works, has resulted in recent years in greatly reducing the junk traffic, yet because of long usage, established business connections, and large vested interests, a considerable trade continues to be conducted over the water route. While in 1904 there were said to be 8,000 bean boats on the river carrying 100,000 tons, there are probably not 2,000 to-day, and within two years the last of these will have gone, if the river has not been improved before then.

All native goods transported by the Liao River route are forwarded under a government permit, for which a fee of 3 per cent ad valorem is charged by the native tax office. Upon arrival at destination a consumption tax of 2 per cent is levied. Wine and tobacco pay a tax of 10 per cent ad valorem at the place of shipment, the payment of which entitles the shipper to a permit exempting the goods from further taxation while in transit. Should the goods be reexported at the point of destination, a further tax of 10 per cent is levied.

RAILWAYS.

South Manchuria possesses greater facilities of railway communication than any part of China proper. In Fengtien Province there are two main railway lines, with several branch lines. The two lines are the South Manchuria Railway (Dairen-Changchun main line and Antung-Mukden branch line) and the Peking-Mukden Railway. These lines branch out from Mukden, running in a southerly direction to Newchwang, Dairen, Antung, and Tientsin and Peking, and in a northerly direction to Changchun. Thus there is easy communication with Japan, China proper, and North Manchuria. The line from Changchun to Port Arthur and Dairen, 439 miles, was formerly a part of the Chinese Eastern Railway (Russian), and was transferred to Japan by the Portsmouth Treaty in 1905. The Japanese main line has the following branches: Port Arthur, 29 miles; Newchwang, 13 miles; Yentai, 10 miles; and Fushun, 31 miles. The Antung-Mukden line, 165 miles, was built by Japan and completed in 1911. The Shanhaikwan-Mukden section, 261 miles, of the Peking-Mukden railway was constructed by China and is under Chinese control and operation. The section to Hsinmintun was completed in 1903 and the extension to Mukden, 36 miles, was built by Japan during the Russo-Japanese war and handed over to China in 1907. A branch line runs from Kowpangtze to Newchwang, 67 miles. The Kirin-Changchun line, 87 miles, was constructed by China and completed in 1913. A recent treaty between China and Japan provides for its eventual transfer to Japanese hands. Nearly all the rolling stock and much of the construction material on the Japanese lines are of American manufacture, while practically all the supplies on the Chinese lines are of British origin.

The South Manchuria Railway since May 1, 1914, has granted a reduction of freight of 30 per cent on 11 kinds of *through* cargo, including cotton piece goods and yarn, carried over its lines from the terminal points, Dairen, Antung, and Newchwang. A reduction of 15 per cent in freight is granted specific *local* cargo shipped over this railway to inland places in Manchuria from the three ports. Freight is not always proportionate to distance. By a series of reductions reciprocal to distance and by specified rates, merchandise carried to and from the three ports costs about the same, so far as the more northern stations are concerned.

On the Peking-Mukden line freights are high, and little effort apparently is made to develop trade. The head office of the South Manchuria Railway Co. is situated at Dairen, where the president, vice president, and directors reside. Among the departments are those of workshops, construction and maintenance, hospitals, land, mining, hotels, geology, stores, harbor works, electricity and gas works, central laboratory, auditing and statistics, etc. The manager and chief engineer of the Fushun colliery resides at the latter place. A superintendent is at the head of each department. American firms, desirous of doing business with the railway, may communicate with any of these officials in English. The position of superintendent of stores corresponds with that of the purchasing agent of an American house. The company's cable address is "Mantetsu," Dairen, and the codes used are A. B. C. 5th edition, A 1, and Lieber's.

The head office of the Peking-Mukden Railway is located at Tientsin.

There are no railways under construction in this district. Those under agreement for future construction are as follows:

Kirin to Hoiryang, on the Chosen frontier, 240 miles, under Sino-Japanese agreement of September 4, 1909.

Three railways radiating from Taonanfu, under Sino-Japanese agreement of 1913, as follows: (1) To Changchun, 180 miles; (2) to Jehol via Chihfeng, 470 miles; and (3) to Ssupingkai, 165 miles.

Kaiyuan to Hailungcheng, 120 miles.

Hailungcheng to Kirin, 110 miles.

Kungchuling to Itungchow, 50 miles.

The detailed loan agreement for the construction of the Ssupingkai-Chengchiatun section, 65 miles, of the Ssupingkai-Taonanfu Railway was negotiated between the Board of Communications and the Yokohama Specie Bank at Peking. The construction is in the hands of the South Manchuria Railway, of which system the new line is to be a part, and work began in the spring of 1917. The total cost of the first section is estimated at $1,500,000. The only work on this section attended with engineering difficulty is the construction of the bridge over the Liao River.

The Chinese Government contemplates the construction of two other railways, as follows:

(1) Chinchow to Dolon-nor. This line, 520 miles in length, would extend from Chinchow, a town situated in the southern part of Fengtien Province, along the Peking-Mukden Railway, to Dolon-nor via Ichow, Chaoyang, and Chihfeng, all of which towns have recently been opened to international residence and trade. A British firm of engineering contractors applied for this concession.

(2) Kalgan to Dolon-nor. This line, 250 miles in length, would be an extension northward of the present Peking-Kalgan line. These lines indicate a direct approach to Peking from the north.

A concession to construct a light rail line between Penchihu and Chienchang, a mining village situated on the upper Taitzu River, 52 miles due east of Penchihu, was secured by the South Manchuria Railway Co. and the Penchihu Colliery & Mining Co. in 1914, on the condition that the line be operated under joint Sino-Japanese management; 70 per cent of the capital was to be furnished by the Penchihu Co. and the remainder by independent Chinese. The first section, Penchihu to Niushintai, a distance of 9 miles, was completed and put into operation by the South Manchuria Railway early in 1915. Plans for the extension of the line to Hsiaoshih, 7 miles beyond Niushintai, are under consideration. It is planned to extend the railway gradually as the collieries along the proposed route are developed and eventually to replace the narrow gauge by the standard gauge. This line, which is purely a mining railway, taps a rich coal and iron district.

The survey of the proposed Newchwang-Kaiping Railway was completed in 1915, and construction work was begun during 1916. Kaiping is on the main line of the South Manchuria Railway, and this new line, 35 miles in length, will reduce considerably the distance between Newchwang and Dairen.

In any consideration of prospective railway enterprises in this region, it is to be noted that in an exchange of notes between the

Japanese and Chinese Governments, dated May 25, 1915, China engages, in the event of being unable itself to supply the funds for building railways in South Manchuria and Eastern Inner Mongolia, to negotiate for a loan with Japanese capitalists.

TRAMWAYS.

A horse tramway, double-tracked, runs from the walled city of Mukden to the station of the South Manchuria Railway, a distance of 3 miles. It is owned and operated by the Mukden Tramway Co., which is a joint Sino-Japanese enterprise with a capital of $95,000 subscribed by Chinese and Japanese in the proportion of 6 to 4, respectively. The charter was granted by the provincial government in 1907 for a period of 15 years, after which the line is to revert to the Government on payment of its assessed valuation to the shareholders. The rolling stock and rails, which consist of property discarded by the municipality of Tokyo after the electrification of its street railways, represent the Japanese shares in the company. The yearly profit of the company is $15,000; in 1915 it paid a dividend of 12 per cent.

ROADS.

In South Manchuria there are no roads in the modern sense of the term except the short streets in the neighborhood of the important railway stations. There are good roads within the city walls of Mukden in the Japanese concession and the area set apart for foreign trade and residence. There are no real roads—that is, metaled or drained—beyond the confines of the jurisdiction of the city. What are styled roads are merely cart tracks over the uneven and friable ground. There are four principal roads out of Mukden:

(1) The *north* road runs through Tiehling, Kaiyuan, Itungchow, and Kirin. Though the traffic between Mukden and Tiehling is slight, that along the road from Tiehling to Kirin is of great importance. During the carting season (October to February) it is computed that at least 3,500 carts pass along this road every day. An examination of the goods carried is interesting and instructive. The carts coming south are loaded to their full extent with grain and beans, alternating with other produce, such as skins, fuel, etc. Those on the return journey carry case oil, piece goods, matches, household requirements, etc., though by no means loaded to the same extent as the incoming carts, about half of them returning almost empty.

(2) The road to the *west* of Mukden runs to Hsinminfu, which is on the important trade route from Fakumen to Chinchowfu; but here again the traffic between Mukden and Hsinminfu is almost purely local in its character.

(3) The *south* road leads to Liaoyang, and is the least important of the four main roads. The traffic is small and conveys little except produce to supply local needs.

(4) The most important road, so far as trade is concerned, is the *east* road through Fushun to the Tunghwa district. It is an old trade route for which Mukden is the only available natural outlet. It taps the large and rich country lying between the Yalu and the Liao Rivers. The hilly nature of the district precludes produce from finding a way out elsewhere.

The towns within the radius of the railway convey their own produce and that of their immediate hinterland directly to the nearest station. Thus the former immense cart traffic has been greatly reduced, except where the old trade route taps regions untouched by the railway. While Tiehling, Kaiyuan, Changtu, Ssupingkai, Kungchuling, and other towns have benefited greatly, Mukden has suffered. The remainder of the network of roads surrounding Mukden link up the innumerable outlying villages. These village communities for a radius of 15 or 20 miles subsist by contributing to the needs of the city.

POSTAL FACILITIES.

The control of Chinese postal affairs in Manchuria is in the hands of a specially appointed postal commissioner residing at Mukden. Post offices, of which there are 197 with 300 agencies, are established at all the cities and towns. Japanese post offices are maintained at all the towns (some 40 in number) along their railways as well as at the other important trading points in South Manchuria. These offices furnish parcel-post and money-order facilities with the United States. The rates and regulations are the same as those obtaining in Japan with respect to mails to the United States. The Japanese postal facilities offer a favorable opportunity for a mail-order trade between the United States and the Mukden consular district. The time for transmission of letters to Tokyo as well as to Shanghai is 2½ days; to Tientsin and Peking, 1 day; and to Europe by the trans-Siberian express route, 13 days. The time required for transmission of letters to or from New York via the Pacific is 28 days.

TELEGRAPHS.

Mukden is the headquarters of the Chinese Telegraph Administration of Fengtien Province. The total length of lines in the Province is 1,820 miles. The materials used are principally of British manufacture. Japanese telegraphs are maintained in connection with the post offices at all the stations along their railways. Cable connections with the United States are via Shanghai by the Chinese lines and via Japan and Bonin by the Japanese lines. The telegraphic rate between Manchuria and Japan is 5 sen ($0.025 gold) per word. The cable rate for a private telegram from Mukden to New York by Japanese connections is $1.33 gold per word; by Chinese connections the rate is $1.21 gold per word. A government telegram to Washington by Japanese connections costs $0.67 gold.

An extension of telegraphs in Manchuria and from Manchuria into Eastern Inner Mongolia is projected by the Chinese Government.

Telegraphic service is to be established between Mukden, points in Eastern Inner Mongolia, and Jehol. The line will extend from Mukden to Taonanfu, a distance of 261 miles, thence south to Jehol via Chihfeng, an additional 325 miles, making the total length of the line 586 miles. Jehol is already connected by telegraph with Peking. This arrangement was made in March, 1915, and the estimated cost is $600,000. The commencement of work was postponed owing to the Sino-Japanese negotiations in May, 1915. The Peking Government in 1916 ordered the civil governor at Mukden to start work at once. At the same time a grant of $100,000 was made as the

Government's share of the work on the first part of the plan. The expense is to be borne in equal shares by the central Government and the provincial Government.

TELEPHONES.

There are two telephone services operating in Mukden, one Chinese and the other Japanese. The Chinese service operates 900 telephones by common batteries on about 63 miles of wire. The Japanese service operates about the same number of telephones, though on more miles of wire. Chinese telephone systems are also maintained at Changchun, Kirin, Tiehling, Kaiyuan, and other places. The Japanese maintain telephone systems at all the important cities and towns along the South Manchuria Railway. There are telephones for public use at all the post offices and automatic telephone stands at central points throughout each town, the charge in each case being $0.025 per call. Moreover, the South Manchuria Railway maintains a long-distance telephone service along its main line and branches. Practically all of the telephonic supplies for these installations, Chinese and Japanese, were obtained from the Nippon Electric Co., of Tokyo, Japan. The monthly subscription to a telephone in the Chinese system at Mukden is $3 gold; in the Japanese system, $3.50.

NEWSPAPERS.

The leading Chinese newspapers of this district are as follows:

Public Opinion of Manchuria, Mukden; the leading Chinese daily, owned by Chinese and edited in Chinese. Circulation: 7,000 daily. This paper receives a government grant of $75 gold a month. The annual subscription price is about $3 gold. The advertising rates are: Full page, $3 gold for one day, $50 for one month, $133 for three months; half page, $2 for one day, $25 for one month, $66.67 for three months; quarter page, $1 for one day, $12 for one month, $33.33 for three months; 50 small characters—3 days, 8½ cents gold per day; 15 days, 5 cents per day; 30 days, 4.2 cents per day.

Mukden Daily Times; the leading Japanese daily, owned and controlled by Japanese and edited in Chinese. Circulation: 5,000 daily. The annual subscription price is about $3 gold. The advertising rates are: Full page, $25 gold per day; half page, $12.50 per day; quarter page, $6.25 per day; 16 small characters, 3 days, 13 cents per day. Special arrangements can be made for longer periods.

Kirin-Changchun Daily News, Changchun; the leading daily, owned by Chinese and edited in Chinese. Circulation: 4,000 daily. The annual subscription price is about $3 gold. The advertising rates for full page, half page, and quarter page are about the same as those of the Public Opinion of Manchuria, given above; for 100 small characters the rates are: For the first day, 13 cents gold; from the second to the seventh day, 10 cents; after the seventh day, special arrangements.

Yingkow Commercial Daily News, Newchwang; the leading Chinese daily, owned by Chinese and edited in Chinese. Circulation, 1,000 daily. The annual subscription price is about $3 gold. The advertising rates offered (subject, however, to bargaining) are: Half page, one month, $13.20 gold; eighth of a page, one month, $5.28.

The two Mukden papers consist of eight sheets each, nearly half being covered with advertisements. Besides local news, presidential orders, and important appointments, they publish news of China generally and the principal foreign telegrams. They also deal with exchange, market, and commercial news. The daily leading article treats intelligently of current affairs of interest. The monthly subscription is $0.32 and the price per copy is $0.02 gold. The leading native and foreign newspapers of Peking, Tientsin, and Shanghai circulate throughout this district. The Manchurian Daily News, the official organ of the Kwantung government (Japanese), edited at Dairen in the English language, has a large circulation among foreigners throughout Manchuria.

It is estimated that 10 per cent of the natives of this district are able to read.

PUBLIC WORKS AND SANITATION.

CONSERVANCY AND RECLAMATION WORK.

An agreement was concluded in 1914 between China and the Treaty Powers relating to the Liao River conservancy. The work comprises the dredging of the bar at the mouth of the Liao River and the improvement of the river channel from there to Newchwang harbor. A loan of $600,000 Mex. to cover the cost of the work has been effected with the Hongkong & Shanghai Banking Corporation and the Russo-Asiatic Bank. The revenues for repaying this loan are to be derived from a surtax on imports and exports, native and foreign, and dues on shipping, native and foreign, entering Newchwang through the Maritime Customs. The Chinese Government has agreed to carry on, concurrently with the work on the lower river, measures for improving the upper reaches of the river, and for this purpose the provincial government has set aside $100,000. This amount is to be collected from the trade and shipping coming under the Native Customs. The conservancy board commenced operations during 1915 by taking preliminary steps to prevent an interruption that was threatening the river channel between Newchwang and the sea. Now that funds are available the work should progress more rapidly. The board has decided that the work should be done by its own staff and not by contract.

Some reclamation work has been carried on in recent years by the provincial government in connection with the construction of a port at Hulutao, which is situated on the Liaotung Gulf, opposite Newchwang. A stone wall has been constructed on a shoal, which is exposed at low water, on the inner side of the isthmus connecting the peninsula with the mainland. The area to be reclaimed within the wall amounts to about 10,000 acres and is to afford a town site. A breakwater about 4,900 feet long is to be built at a cost of $1,500,000; about 930 feet has already been constructed. A hotel and a residence for the engineer in charge of the works have been erected. A hundred or so small houses have been constructed for the use of tradespeople and workmen. The telegraphic and telephonic communications have been installed. The port is 7 miles from Lienshan on the Peking-Mukden line, and the two places are connected by rail for the use of construction trains. More than $500,000 has already been expended by the central Government on the works, and the sum of $2,800,000 more is required to complete the project. Owing to lack of funds no work has been done since 1913, and it is impossible to state when operations will be recommenced.

STREETS IN CITIES AND TOWNS.

There is no municipal organization as such in Chinese cities and towns, the district (township or county) being the unit for administrative purposes—civil, political, judicial, and fiscal—within the Province.

As a rule the streets in the native cities and towns of this district receive little attention in the way of upkeep. In Mukden the streets are rather better than those in most Chinese cities. The principal thoroughfares of the native city were reconstructed and remetaled during 1907–8 at the expense of the provincial government, when macadam roads were also constructed in the foreign settlement, but many of these streets and roads have fallen into disrepair and are being neglected on the pretext of lack of funds, though a special tax for the upkeep of the streets is levied on all carts and vehicles using them and, in addition, the tax on land in the foreign settlement is, by regulation, to be applied toward the maintenance of the roads. There is a fairly good carriage road between the Japanese railway station and the walled city of Mukden, 2 miles in length. In the Japanese settlements along the South Manchuria Railway there are good streets.

ELECTRIC LIGHTING.

The principal cities of this district are lighted by electricity. In Mukden the main streets, the public buildings, many shops, and the large residences are lighted by electricity, the use of which has spread rapidly.

WATER SUPPLY AND SEWERAGE.

There is no water supply or sewerage system in Mukden, nor is their establishment in serious contemplation. The provincial treasury is constantly impoverished. Except for a small waterworks and sewerage system maintained by the South Manchuria Railway Co. in its settlement at Mukden, there are no such systems in this district. The Yingkow Waterworks & Electricity Co., a joint Japanese-Chinese concern, maintains a water-supply system at Newchwang. The same company owns the local telephone system, which has a large number of Japanese and Chinese subscribers.

FIRE PROTECTION.

The Chinese Chamber of Commerce at Mukden maintains a fire brigade, equipped with hand pumps, hose carts, and buckets. This brigade is not always effective, especially when a fire originates at some distance from a well or other source of water supply. The municipality of the Japanese settlement maintains a volunteer fire brigade, which is equipped with motor-power and hand-power pumps, hose carts, hook-and-ladder carts, and buckets. At various places in the Japanese settlement are hung bells that sound the alarm when a fire occurs either in the Japanese concession or in the native city. These fire bells are near the Japanese police stations and are sounded by the police when occasion requires. In the new Japanese railway town at Mukden, where a small waterworks system has been installed, there is a good supply of water, but in all other parts of Mukden the supply is generally inadequate.

PUBLIC-SERVICE COMPANIES.

At Mukden and Changchun both the provincial government and the South Manchuria Railway Co. maintain electric light plants. The provincial government of Kirin owns and operates an electric light plant at the capital of that Province. At Liaoyang and Tiehling electric light plants under Sino-Japanese control have been installed. Another Sino-Japanese public-service enterprise is the Yingkow Waterworks & Electricity Co. at Newchwang. The South Manchuria Railway Co. has installed an extensive electric light works at Fushun. The machinery and supplies used in the installations at Mukden and Changchun are mostly of American manufacture, while the one at Kirin has principally German materials. Japan supplies most of the machinery and fittings for the other plants named. The plant at Mukden was established by a grant of the provincial government in 1908, at an original cost of $250,000. It is under the direction of an American engineer acting under a resident Chinese director, and is well managed. Besides being used for lighting, the electricity of this plant serves as the motive power for fans, for motors in several printing establishments, a cigarette factory, and a native flour mill. Several motors are used for irrigation purposes. The capacity of the plants in this district is as follows:

Mukden Electric Light Works.—Alternating current of 50 cycles and with a primary voltage of 2,250 and a secondary of 110.

South Manchuria Railway Electric Light Works.—Alternating current of 40 cycles and with a primary voltage of 3,000 and a secondary of 110.

Tiehling Electric Light Works.—Alternating current of 50 cycles and with a primary voltage of 3,000 and a secondary of 110.

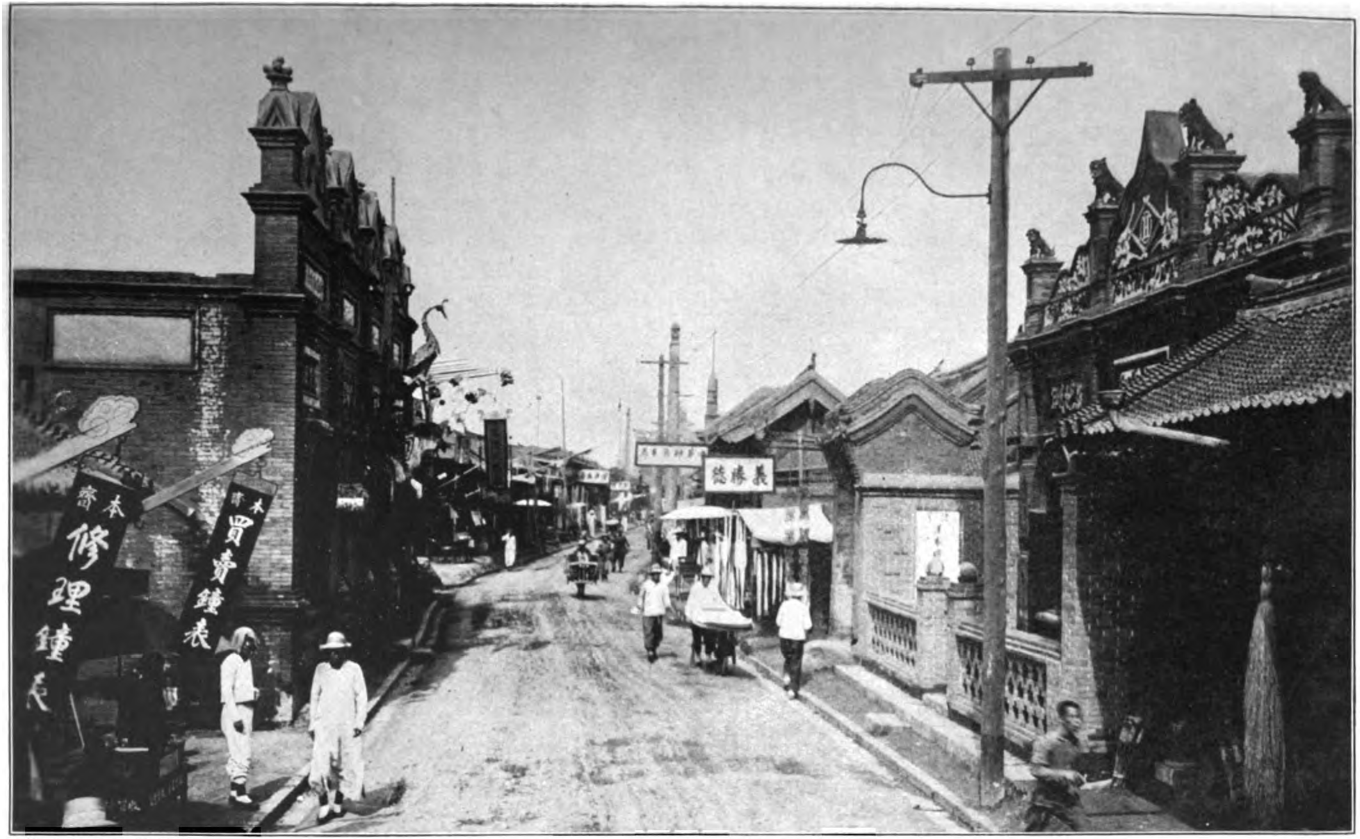
Liaoyang Electric Works.—Same equipment and capacity as the Tiehling works.

Changchun Electric Light Works.—Alternating current of 60 cycles and with a primary voltage of 2,250 and a secondary of 110.

Kirin Electric Light Works.—Alternating current of 50 cycles and with a primary voltage of 5,000 and a secondary of 220.

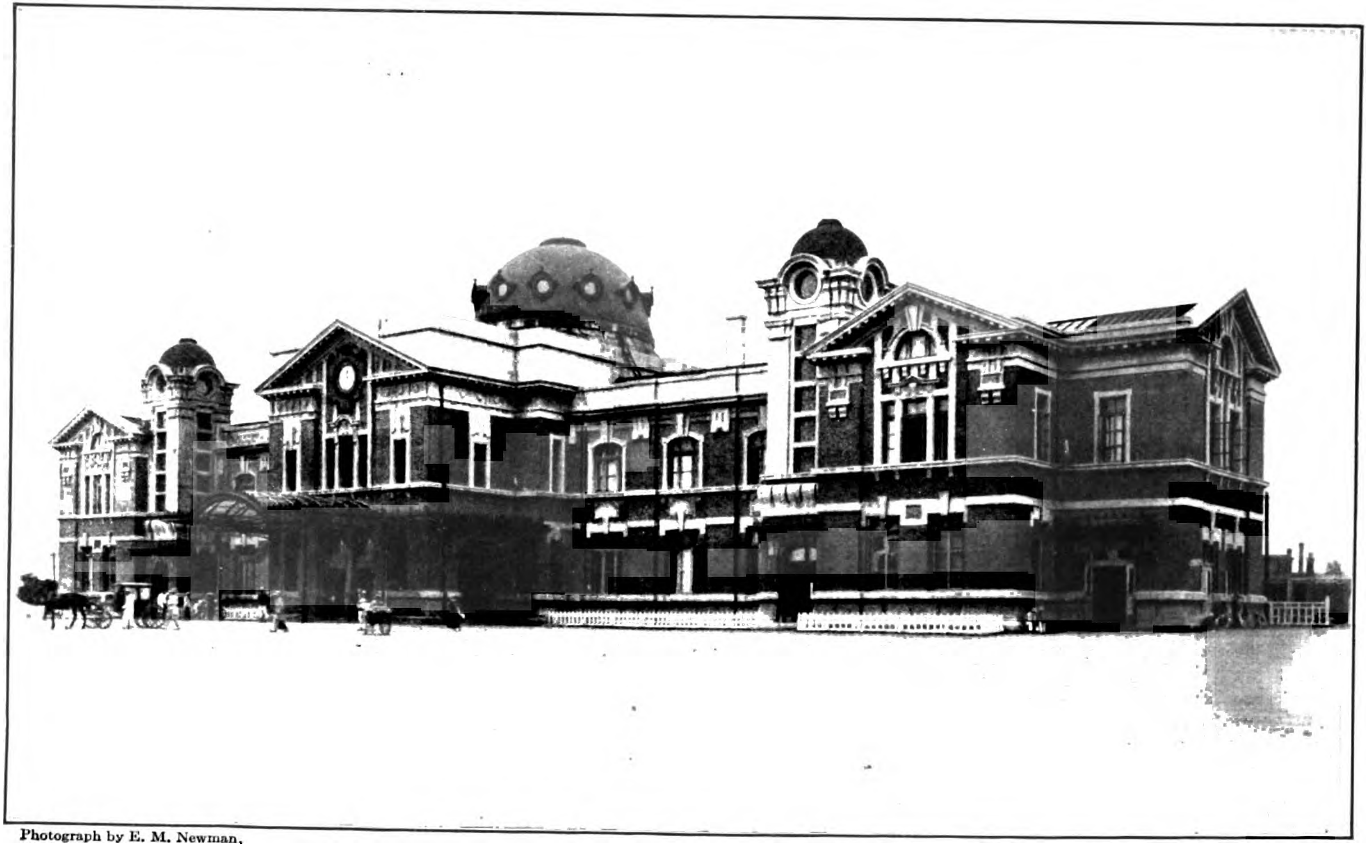
The scale of charges at the Chinese plant in Mukden is as follows: Per kilowatt, $0.08; meter rent per month, $0.33; charges for lights without meter by special arrangement, according to power consumed and number of lights.

The only waterworks systems in this district are the small plant in the railway settlement at Mukden and the service at Newchwang. In 1914 a Chinese company petitioned the provincial government for permission to install waterworks at Mukden. The proposed capital was to have been $1,000,000 local currency (about $400,000 United States currency), in 100,000 shares of $10 each. The amount to be paid up before commencing work was to be $240,000, the remainder to be called for as required. As the promoters did not file particulars and, moreover, lacked the funds necessary to carry out the project, the petition was refused. The company, however, was granted additional time within which to comply with the regulations, but so far nothing has been done in the matter. A waterworks system, if properly installed and maintained and conducted in a businesslike manner, should prove a profitable enterprise in Mukden.



Photograph by E. M. Newman.

FIG. 22.—STREET SCENE IN MUKDEN.



Photograph by E. M. Newman.

FIG. 23.—RAILWAY STATION, MUKDEN.

TREATY PORTS AND FOREIGN CONCESSIONS.

The Mukden consular district includes the following places opened to international residence and trade: In Fengtien Province—Mukden, Newchwang, Liaoyang, Hsinminfu, Tiehling, Tungkiangtze, Fakumen, and Chinchow; also, in the Chientao region in eastern Fengtien, Lungchingtsun, Chutszchie, Towtaokow, and Paitsaokow. In Kirin Province—Changchun, Kirin, and Hunchun. There are international settlements at Mukden and at Newchwang; at Mukden a special area adjoining the walled city has been marked out and set apart for foreign residence and trade, but the boundaries of the so-called international settlement have never been defined, while the experimental draft regulations governing the lease of land therein have not yet obtained the approval of the consular body or the sanction of the diplomatic corps at Peking. Land, however, is being leased in perpetuity by foreigners both in the so-called settlement and within the city itself, and leaseholders are paying provisionally the recognized ordinary taxes; all leases of land in the settlement are being made through the land office at fixed prices.

The South Manchuria Railway Co. has established settlements on the railway lands at all the large stations; moreover, the Japanese have formed exclusive settlements, apart from the railway settlements, at Mukden and Newchwang. Foreigners may reside and transact business within the Japanese settlements; they may also lease land therein with the sanction of the Japanese consul for a period of 20 years, with the privilege of conditional renewal, but they must first declare before their respective consuls that they will abide by the Japanese regulations devised for the settlements. All residents of these settlements, including foreigners, are assessed a household tax, based on the amount of income, and a business tax. Foreigners, however, have so far resisted the payment of these taxes and the question is now under negotiation. The Japanese residents in each settlement constitute a municipality under the control of the Japanese consul. The functions of the municipality are confined to matters relating to education, sanitation, lighting, etc. The taxes are collected by the municipality office, while as an advisory organ there exists an administrative committee. The right to representation on the settlement councils is theoretically extended to foreigners. The South Manchuria Railway Co. has charge of civil affairs in the leased territory of the railway, which embraces the numerous railway settlements. Under the Sino-Japanese treaty of May 25, 1915, Japanese subjects have special privileges as regards travel, trade, industry, residence, and landholding in the interior of South Manchuria. The Japanese population at Mukden is 9,000, and other foreigners, including 25 Americans, number 150. The Chinese population is estimated at 175,000. In Newchwang there are 2,400 Japanese, while the other foreigners, including 5 Americans, number 190. The Chinese population of Newchwang is estimated at 54,000. There are 5,000 Japanese and 176 other foreigners, including 3 Americans, at Changchun; the Chinese population is placed at 100,000. The foreign population of Kirin is small, consisting of Japanese and a few Russians. The Chinese population is given as 125,000.

Japan has consular establishments at all the places above named, the consulate general for the whole of Manchuria being located at

Mukden. Japanese consular officers in Manchuria are, as well, secretaries to the governor general of the Kwantung Territory, to whom the president of the South Manchuria Railway Co. is also an adviser. These consular officers have charge of police affairs along the railway lines under the instruction of their superiors at Port Arthur. Police officials of the government general of Kwantung may, in addition to their regular positions, be appointed as police officials attached to the consulates in South Manchuria. There is a Russian consulate general at Mukden and consulates at Newchwang, Changchun, and Kirin. Great Britain maintains a consulate general at Mukden and a consulate at Newchwang. Germany maintains (ordinarily) a consulate at Mukden for all Manchuria, with a vice consulate at Newchwang. There is a French consul at Mukden for all Manchuria. At Newchwang a merchant serves as consul for the Netherlands and vice consul for Norway; another merchant is vice consul for Sweden.

In the treaty marts, as well as in the railway zone, conditions are not unfavorable to foreign trade. Many of the Japanese goods imported into Manchuria and intended for distribution in the interior do not involve the taking out of a transit pass, as they are marketed in the various Japanese settlements along the railway by Japanese shopkeepers who are not liable to Chinese taxes. Japanese products marketed in these Provinces are imported almost entirely by Japanese subjects, and a considerable portion is distributed by Japanese merchants. On the other hand, American goods, aside from kerosene, tobacco, and sewing machines, are chiefly imported from Shanghai through Chinese and distributed by Chinese who pay the internal taxes. American goods would receive the same treatment on the Japanese railways and in the settlements as the goods of Japan or any other nation.

Foreign shippers seem now to have become fairly satisfied with their treatment by the South Manchuria Railway Co. It is admitted that they are being given good and prompt service even during the busiest season, and the belief is growing that the Japanese are endeavoring to treat the foreign shippers as fairly as their own people, though the smaller Chinese shippers are at a disadvantage.

FINANCE AND BANKING.

Finance and currency in this district are in a chaotic condition. Great quantities of notes for both "large" and "small" dollars have been issued under government guaranty. The general currency is "small coin," the 10-cent piece being the unit. Small-coin notes are issued by the banks at values varying from 1 10-cents to 500 10-cents. The value of small coin in reference to large dollars and the gold and silver yen varies daily. There are in Mukden two or three kinds of taels, at least three different kinds of dollars, small coin in silver of every coinage in the country and small coin in notes, copper cents, tiao notes issued by private Chinese hongs and banks, copper cash, Japanese gold yen in coin and in notes and the subsidiary currency, Japanese silver yen, and Russian rubles. Monetary conditions in South Manchuria in recent years have been influenced by Japan. The Chinese posts, telegraphs, and railway demand payment in Peiyang or large dollars. The Japanese railway and posts and telegraphs require gold yen, while ordinary store purchases, wages, etc., are in small coin.

The Chinese banking system in Mukden has not yet been placed on a sound basis, and exchange business with places abroad is too uncertain to secure a clientele. Foreign exchange in Mukden is now transacted only through the Yokohama Specie Bank. As the local native banks often issue their own notes indiscriminately and without sufficient reserves they become discredited, and, as a result of the great uneasiness felt in commercial circles in handling such notes, runs on these banks are frequent. The note issues consist of tiao, dollar, tael, and subsidiary-coin notes, not negotiable outside of the Province. It is estimated that these notes for seven banks reached in 1915 a total value of $18,000,000 small coin, while the reserves amount to $8,000,000 small coin. To aggravate the situation still further there are large quantities of counterfeit notes and coins in circulation; and along with the scarcity of metallic money occurs the issuance at intervals of debased coin. The unsatisfactory monetary situation, which has been the chief obstacle to the development of foreign trade in this district, is being improved through the increased circulation of the Japanese gold yen. Importers are now able to base their sales of foreign goods upon a gold standard, thus eliminating the speculative element growing out of the rise and fall of silver. The note circulation of the Japanese banks in this district amounts to $4,325,000 United States gold, of which $2,500,000 represents the value of gold notes and $1,825,000 of silver notes.

Unless the Chinese Government is able in the near future to redeem the heavy issues of the native banks for which no reserve is held, and to effect a currency reform in Manchuria that will enable Chinese merchants to obtain loans on good security at reasonable rates, the gold yen will become the chief, and in time the sole, circulating medium. The native banks, at the instance of the Chinese Government, have made sporadic attempts at redemption of their notes, but so little progress was made that confidence in this paper currency has not increased.

The difficulties attending foreign commercial transactions in this district are to be found in the currency conditions above described and in the trade peculiarities of the Chinese merchants. The latter are not accustomed to foreigners; being ignorant of the methods of foreign banking, having no idea as to how to conduct correspondence with foreigners, and being unable to communicate in English, they insist that transactions take place through the medium of some one they know and with whom they can converse. This is the comprador.

The native banks grant credits to Chinese merchants on approved securities at the rate of 15 per cent per annum, while the foreign bank rate is from 7 to 10 per cent.

The following are the foreign banks in the treaty ports of this district: Hongkong & Shanghai Bank, at Newchwang; Russo-Asiatic Bank at Newchwang and Changchun; Yokohama Specie Bank, at Mukden, Newchwang, Changchun, Liaoyang, and Tiehling; Bank of Chosen, at Mukden, Kaiyuan, Ssupingkai, and Changchun; Chenglung Bank, at Mukden, Yingkow, Changchun, and Kaiyuan.

The Hongkong & Shanghai Bank, the Russo-Asiatic Bank, and the Yokohama Specie Bank transact all kinds of banking and exchange business, while the Bank of Chosen and the Chenglung Bank confine themselves to Japanese and native business. The Japanese banks show a preference for merchants and traders of that nationality.

Rates for advance on cargo exported are as follows: Japanese, 7 per cent; foreigners, 8 per cent; Chinese, 10 per cent. Also, special facilities are granted to customers who wish to deal in exchange drawn in Japanese currency. The Japanese banks render all possible facilities to Japanese and Chinese merchants who have Japanese goods consigned to them for account of such merchants, delivery against cash payment. In such cases the banks will permit the merchants to draw out small portions of the goods at a time against equivalent cash payments. The South Manchuria Railway Co. also renders similar facilities to such merchants. The Yokohama Specie Bank loans money to members of the Japanese Cotton Exporters' Association at the reduced rate of 4½ per cent per annum. This is done at the direction of the Japanese Government as a special aid to this trade.

The following are the leading Chinese banks in this district: The Bank of China, the Bank of Communications, the Bank of Territorial Development of China, the Fengtien Provincial Government Bank, the Kirin Provincial Government Bank, the Heilungkiang Provincial Government Bank, the Industrial Bank, and the Commercial Bank. So far as assistance in developing Chinese trade is concerned, the native banks are useless. Their business appears to be restricted to advances on real estate and other approved securities at high rates of interest (1½ per cent per month) and to dealing in exchange values, in which the numerous currencies and notes of Manchuria afford an extensive and remunerative business.

The Bank of China, the Bank of Communications, and the Bank of Territorial Development of China allow 2 per cent interest per annum on current deposits, 3 per cent per annum on fixed deposits for three months, 4 per cent per annum for 6 months, and 5 per cent per annum for 12 months, while the three Provincial Government Banks of Fengtien, Kirin, and Heilungkiang, the Industrial Bank, and the Commercial Bank allow 3 per cent per annum on current deposits, 4 per cent per annum on fixed deposits for 6 months, and 7 per cent per annum on fixed deposits for 12 months.

All the above native banks charge 1½ per cent per month on overdrafts.

MANUFACTURING AND OTHER INDUSTRIES.

Manchuria being essentially an agricultural country, there are as yet few modern industries employing skilled labor. Advances in certain lines of industry, however, are occurring, chiefly because of the increased capital available for investment and the improved transportation facilities. Several items of export consist of semimanufactured articles. Small household industries are becoming independent occupations, while better methods and larger undertakings are gradually coming into vogue. The chief industries are bean-oil and bean-cake manufacture, flour milling, the distilling of liquors, the tanning of leather, the manufacture of brick and tiles, weaving and dyeing, and the usual trades.

MODERN INDUSTRIES UNDER NATIVE CONTROL.

Among the leading modern industries and manufactures under native capital and management are the many small factories turning out cotton woven fabrics. There are 138 weaving establishments in Newchwang; 50 are engaged in the manufacture of imitation foreign sheeting, using 1,000 Japanese-made looms, each capable of turning out one piece of 40 yards per day; 8 other factories with 40 looms are making an imitation Shanghai-made cloth, each machine turning out 1½ pieces of 21 yards per day; the remaining 80 factories are weaving cotton tape and waist and ankle bands at an average daily rate of a dozen pieces of assorted lengths for each machine. Japanese cotton yarn is principally used on account of the credit allowed the small manufacturer by the yarn dealers. There are also 20 factories in Newchwang engaged in the manufacture of cotton hose. They operate 100 Japanese-made knitting machines, each capable of turning out 2 dozen pairs a day. A Chinese company at Mukden, capitalized at $1,000,000, is engaged in the manufacture of sheetings. The machinery consists of 30 looms with about 50 operatives, and the daily output is 1,200 yards. The same company operates a cotton mill at Liaoyang containing 24 looms—16 for sheetings and 8 for nankeens. The production of this mill in 1915 was 6,500 pieces of sheeting and 4,500 pieces of nankeens. Two match factories at Newchwang are capable of turning out 2,000 gross of boxes daily. The raw material is imported almost entirely from Japan, and consumption is at present chiefly confined to Fengtien Province. Of the 440 operatives employed, 60 are women.

The bean-milling industry is large. There are 35 bean mills, Chinese owned and managed, in Mukden, 30 in Liaoyang, 13 in Haicheng, and 12 in Newchwang. These native mills contain only hand-power presses taking five cakes at a time. The largest contains 120 presses and can turn out 5,400 cakes a day; the smallest contains 20 presses and can turn out 900 cakes a day. Mills work for eight or nine months a year; that is, they shut down for two months in the middle of winter and for one month in the height of summer. Work is regulated by market conditions, prices, supply of beans, and also demand for the cake and the oil. There is an average daily output at Newchwang of about 20,000 cakes, or of something less than 7,000,000 cakes a year. There are native flour mills with modern machinery at Tiehling and Changchun. The manufacture of samshu, the native spirit distilled from corn and kaoliang, is increasing in Mukden. At the Government Manual Training Institute in Mukden Chinese are taught weaving, carpenter work, dyeing, embroidering, and the manufacture of lacquer ware, hardware, carpets, and leather goods.

CRUDE NATIVE INDUSTRIES.

Skins.—Mukden is celebrated for the excellence of its curing and piecing together of skins. These are mainly raccoon, squirrel, cat, otter, fox, and dog. Though skins of sable, tiger, leopard, and martin are prepared and sold there, the market is slowly moving toward Harbin. The coarse Mukden-cured skins, such as sheep and dog, find a ready market all over Manchuria. The magnitude of the fur trade is accounted for by the extreme rigor of the winter, which renders necessary the universal use of skins in addition to the wadded clothing worn by the inhabitants.

Cart wheels and axles.—The manufacture of cart wheels and axles constitutes one of the most flourishing local trades, these products being exported all over Manchuria. The wood used is hard and durable and is imported almost wholly by rail from Chosen. The work is done entirely by hand, and the number of men employed in this trade, together with the tire and nail trade, is considerable.

Ready-made clothing.—A great number of people are employed in the manufacture of all kinds of clothing. In every branch of this trade the locally made article competes successfully with imported goods, especially in foreign-style hats and caps, which have almost replaced the old Chinese headgear. The output sells readily throughout Manchuria. The clothing of the entire police force, as well as the military, in foreign-style uniforms has given an impetus to the tailoring and allied trades. The total number of sewing machines in use is large. To this activity in the clothing trade may also be attributed much of the good business done by the piece-goods merchants and the strengthening of their position as middlemen for the northern trade. Except among the official class and a few southern Chinese merchants, there is little indication as yet of any tendency on the part of the mass of the people to adopt foreign-style clothing, though foreign-style hats have undoubtedly come to stay.

Kitchen utensils.—There is a flourishing trade in this line. Immense quantities of small fire shovels, iron ladles, and well buckets are made from iron plates and sheets, which formerly came mostly from England but are now coming from America. Foreign scrap iron of all sorts is smelted down and cast into small kettles, while native iron is used for casting large cooking bowls. A considerable trade is done in small copper and brass kettles, cooking pots, spoons, ladles, strainers, and large brass water boilers. Great quantities of small oblong boxes with sliding lids are also sent out over Manchuria from Mukden. A flourishing trade is done in pig's-bristle brushes.

Iron and brass trade.—A brisk business is also done in nearly all branches of the iron and brass smiths' trade. Iron tires, spikes and nails, small stoves cast from an American pattern, thin stove piping, hammers, saws, locks, hinges, masons' tools, as well as such agricultural instruments as spades and rakes, are turned out daily and sell readily. All of the foregoing are entirely of native manufacture and fashion, foreign articles for like uses not being favorably received up to the present time.

FOREIGN INDUSTRIES.

The largest bean mill in Newchwang, and in fact the only one with up-to-date machinery, is operated by the Japanese firm of Kodera & Co. This mill has 40 pressing machines capable of turning out 6,000 cakes a day. Its presses are hydraulic and take 25 cakes at a time. The Japanese have several bean mills at Liaoyang. Japanese flour mills, operated by steam and electricity, are located at Tiehling and at Liaoyang. The Japanese cigarette factory at Newchwang is doing a flourishing business. The Sanlin cigarette factory, at Mukden, under Japanese management, has a capital of $10,000; about 50 Chinese hands are employed, and the annual output has an estimated value of $40,000. The Hoizumi glass factory, at Mukden, under Japanese management, with a capital of $12,500, employs 12 Japanese and 32 Chinese hands; the value of the annual output is given as $17,500. A Japanese match factory, with a capital of

$22,500, is located at Kirin, with a branch at Changchun. Another Japanese match manufacturing company, capitalized at $150,000, has a plant at Changchun. The daily output of these factories is 3,000 gross of boxes.

The Manchuria Daily News reports that the Manchuria-Mongolia Wool Manufacturing Co. has been registered at the Japanese consulate at Mukden with a capital of 10,000,000 yen ($4,985,000). The Japanese Government will include in the budget of the Kwantung government an annual grant to this company of 150,000 yen ($74,775) for four years. The head office will be located at Mukden, where a woolen-yarn and weaving factory will also be situated. At Tientsin a branch office and wool cleaning and combing factory will be established. Manufacturing will probably not begin before the latter part of 1919.

The Electrochemical Industry Co., of Tokyo, has installed a plant at Fushun for the production of carbide, sulphate of ammonia, and other chemical products.

The South Manchuria Sugar Manufacturing Co., controlled by Tokyo financiers and capitalized for 10,000,000 yen, has constructed a large refinery at Mukden. The farmers in the Mukden district are being encouraged to grow sugar beets.

There is a large distributing business in tobacco, which was augmented by the establishment at Mukden in 1909 of the factory of the British Cigarette Co., an allied company of the British-American Tobacco Co. The factory was destroyed by fire in 1914, and though it has since been rebuilt the manufacture of cigarettes has not been resumed. The factory at Newchwang maintained by the tobacco monopoly of Japan continues to turn out large quantities of cigarettes from the Manchurian leaf, the bulk of which comes from Kirin Province, blended with the Korean and American leaf. In addition, vast quantities of ready-made cigarettes are imported by the Japanese company from Japan and by the British company from England, America, and Shanghai. The consumption of cigarettes has advanced by leaps and bounds during the past decade; and the competition between these two companies for the cigarette market of Manchuria has been keen. Both companies claim great advance in their sales, though neither has yet succeeded in overcoming the other. The business in tobacco, raw and manufactured, is one of the staple trades of this district, and is likely to increase.

Manchurian industries are on the eve of a great development. Animals and hand power as the motive forces are slowly giving way to steam and electricity; hence industries are being consolidated into a factory system, and Manchuria, with its abundance of raw material, cheap labor, large coal deposits, and good transportation facilities, should in time become an industrial country. By virtue of the Sino-Japanese treaty of May 25, 1915, respecting South Manchuria and Eastern Inner Mongolia, Japanese are permitted to reside throughout South Manchuria and engage in business and manufacture of every description. They may lease land for a 30-year period with unconditional renewal, for the erection of suitable buildings for trade, manufacture, and agricultural enterprises. The Chinese Government also engages to consent to joint Sino-Japanese operation of agricultural enterprises and industries incidental thereto. There has been a bill in the Japanese Imperial Diet for the establishment of a special bank to finance Japanese enterprises in Manchuria and Mongolia. Such a financing medium, granting special facilities to intending investors in Manchuria, would be warmly welcomed in Japanese commercial circles and should lead to the rapid development of these regions along industrial, residential, transportation, and real estate lines.

EXPORT TRADE.

The export trade of this district occupies an important place and during the past decade it has shown marked increases. The chief article of export is the soya bean and its products, followed in a much smaller volume by cereals, hides, skins, furs, and bristles. Coal has also been largely exported in recent years. Conditions favoring the export trade are the great natural resources, including the fertility of the soil and the abundance of minerals; the good climate; and exceptional highways of communication, including waterways, land routes, and a network of railways, which possess good terminal facilities at the seaboard.

The region is sparsely settled, and agriculture is in a primitive stage. The people in general are engaged in agriculture and stock farming. Forestry and mining are confined to a few places, while manufactures are crude and hold a very subordinate place. Among other conditions handicapping the export trade are: (1) The unsatisfactory currency conditions; (2) the inadequate transportation facilities throughout the interior; (3) the activities of robber bands; (4) the complex political situation, which tends to prevent merchants in the interior from acquiring stocks; and (5) the rainy season, which continues for three months yearly, when the roads become practically impassable. Where loads can be carried at all they are only small ones.

As regards main conditions in the handling of the export business, the usual procedure is to purchase in the open market and to make payments as soon as shipping documents are obtained. The long interval between purchase and shipment, due to the distance of the shipping port from the interior points, is financed by the comprador; but if the goods are shipped over the South Manchuria Railway through bills of lading may be obtained at the railway freight offices, upon which documents the shippers may obtain advances. The shipping costs on general cargo c. i. f. San Francisco, including export duty, are between 12 and 15 per cent during normal times. Customs duty is levied in China on exports as well as on imports, both being assessed at rates based on a nominal 5 per cent levy. While the opening of the Panama Canal was expected to reduce these charges so far as they relate to shipping, lack of tonnage and high freight rates have combined to counteract this advantage.

The established foreign firms in the open marts of this district make their most extensive purchases through the comprador, who employs reliable native agents in the various producing centers and through them makes judicious advances to the producers, thus securing contracts for forward delivery at prices appreciably below average market rates. This system is favored by many producers, as it insures a firm and reasonable price for their goods instead of prices arbitrarily fixed by the local chambers of commerce. The large Japanese firms have adopted the same system, except that the services of the comprador are dispensed with.

The regular market rates, which are periodically fixed by the chambers of commerce, are influenced by the amount of stock held in the warehouses, the proprietors of which are invariably members of the chamber of commerce and the various trading guilds. As soon as a buyer or seller comes into the market and makes an inquiry or an unsuccessful attempt to negotiate business, full particulars thereof are sent immediately to all the other warehouses, so that it is practically impossible for a prospective buyer or seller to do business independent of the guild.

Cash buying is of value not only for the immediate benefits derived from purchase, but for the impression it makes upon the natives, who are likely to sell more cheaply for cash to the foreigner with his supposedly abundant capital rather than to accept the risks of even better terms from native dealers. If the foreigner has to ask for terms, both the moral effect and the advantage are lost.

The principal articles exported through the Maritime Customs at Newchwang during the years 1904, 1913, 1915, and 1918 were as follows:

Articles.	1904	1913	1915	1918
Beans.....short tons..	121,825	90,823	134,135	36.677
Bean cake.....do....	132,411	281,927	272,401	117,248
Bristles.....do....	14	123	210	167
Cereals.....do....	....	40,544	15,749	15,614
Coal.....do....	....	344,356	293,195	65,076
Fish, dried and salt.....do....	249	158	171	53
Ginseng, all kinds.....do....	105	153	176	120
Hair, horse.....do....	9	75	45	39
Hides.....do....	43	251	17	....
Medicines.....value..	$112,988	$197,597	$140,124	$272,375
Oil:				
Bean.....tons..	4,784	7,531	4,018	480
Castor.....do....	157	914	405	162
Samshu (Chinese wine).....do....	457	1,445	1,808	1,611
Seed.....do....	1,317	1,575	1,061	423
Silk, wild and refuse.....do....	852	725	1,067	383
Skins (fur).....pieces..	3,584	89,806	74,253	....
Tobacco.....tons..	41	96	38	131
Wool.....do....	....	....	75	....

While the above table may serve admirably in showing the various kinds of local products available for shipment abroad, its figures can not be taken as an indication of the trend of the trade of the entire district. The export trade of the district has increased greatly during the past decade, whereas the foreign trade of Newchwang has been steadily declining since 1911. This latter result is due principally to the phenomenal growth of the rival ports, Dairen and Antung, which have benefited at the expense of Newchwang through artificial aids to trade devised by the Japanese. The trade of Mukden and the other open marts in this district does not come under the cognizance of the Maritime Customs, and the statistics required for a precise estimate are not available.

A new article for export is found in crude talcum, of which large quantities are produced near Haicheng, an old Chinese town just north of the boundary of the Kwantung Leased Territory.

Direct exports to the United States consist chiefly of bristles, horsehair, and various kinds of skins. However, the bulk of the exports from Dairen to the United States is produced in this district—beans (from which the oil for export is expressed), hempseed, kaoliang (tall millet), and maize. The coal shipped from Dairen to the Philippine Islands comes from Fushun. Mukden is virtually a depot for the collection of native produce destined for transshipment to the coast, where the headquarters of the foreign firms are still located. Considerable export trade from this district is done indirectly through ports of transshipment, such as Kobe and Shanghai, so that there are native products, such as bean oil, maize, and kaoliang, which, though they eventually reach the United States, are not invoiced and certified to at the Mukden consulate general.

The following table shows the declared exports to the United States from the Mukden district during the calendar years 1917 and 1918:

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value.
Apricot kernels..........pounds..	22,400	$5,065	....	....
Bristles:				
Pig..........do....	292,584	314,645	272,835	$377,292
Badger..........do....	....	....	176	815
Hair:				
Goat..........do....	332	144	7,634	5,743
Horse..........do....	114,681	77,847	253,051	164,549
Horse manes..........do....	18,372	6,864	6,800	2,669
Horsetails..........do....	20,266	13,261	....	....
Hides, cow..........do....	41,272	18,695	....	....
Skins (furs):				
Badger..........number..	....	....	901	3,284
Cat..........do....	83	141	5	18
Dog, mats..........do....	168,828	188,574	55,749	84,878
Ermine..........do....	....	....	1,275	2,052
Fox..........do....	7,524	54,268	37,667	385,262
Foxtails..........do....	11,878	4,799	3,364	1,897
Goat..........do....	14,699	19,238	....	....
Kolinsky [1]..........do....	....	....	261,016	263,016
Lamb..........do....	405	7,071	1,720	11,976
Leopard..........do....	....	....	299	463
Lynx..........do....	....	....	114	718
Marmot..........do....	1,060	1,042	437,213	228,962
Marten..........do....	....	....	132	1,696
Mink, Jap..........do....	4,800	687	....	....
Opossum..........do....	1	1	....	....
Sable..........do....	228	11,503	1,105	68,006
Rabbit..........do....	78	30	....	....
Raccoon..........do....	11	46	3,839	19,416
Sheep..........do....	1,000	1,286	884	1,753
Squirrel..........do....	14,799	4,446	1,182,756	514,430
Squirrel tails..........do....	344	1,851	135	571
Weasel..........do....	181,501	78,469	63,500	21,601
Wildcat..........do....	76	322	....	....
Wolf..........do....	94	353	1,684	9,004
Wolverine..........do....	....	....	1	21
Rubber, old..........pounds..	46,662	3,782	....	....
Rugs, woolen..........square yards..	54	562	....	....
Stamps, Chinese postage..........number..	....	800	....	....
Wool, sheep..........pounds..	....	....	23,147	7,459
Yak tails..........do....	....	....	186	210
Total..........	....	815,792	....	2,177,761

[1] Kolinsky skins were classified as weasels in 1917 return.

The declared exports to the United States in 1913 were:

Articles.	1913		Articles.	1913	
	Quantity.	Value.		Quantity.	Value.
Bristles..............pounds..	109,931	$86,806	Skins—Continued.		
Household goods...packages..	29	1,196	Goat ....pieces..	31,368	$15,173
Sesame seeds........pounds..	2,240	107	Marmot............do....	300	137
Skins:					
Dog..............pieces..	13,566	10,816	Total................	....	115,386
Fox................do....	192	1,151			

IMPORT TRADE.

The foreign import trade of this district has shown great development during the past decade. Along with the exploitation of the latent wealth-producing resources of the country has occurred the enhancement of the purchasing power of the natives. There is not the same prevalence of poverty in Manchuria as in China proper. Transportation facilities have greatly improved during this period, so that rail communication is now available between practically all the important centers. From these points to interior places, however, goods must be conveyed by means of native carts over poor roads. Generally speaking, the distributing facilities may be described as satisfactory. Following the revolution of 1911 the Chinese, especially the younger generation, including the students, showed a tendency to adopt foreign dress. They soon found, however, that foreign clothing was not only more expensive but less comfortable than native dress. Foreign boots, shoes, hats, hose, and underwear strongly appeal to the Chinese, and there is an appreciable demand for these commodities. This applies also to provisions and household effects. While the Chinese have to a great extent retained the native style of dress, much of the material used is of foreign manufacture, especially in the cotton fabrics. The Chinese, as a rule, favor foreign goods, being aware of their superior quality, and prefer American or European products to the Japanese, provided the prices are within their means.

Direct shipping facilities by rail and steamer exist between Japan and Manchuria. Shipments of goods from the United States and Europe are made via Kobe or Shanghai, at which points transshipments to coast steamers are necessary in order that the goods may reach either Dairen or Newchwang, the only two seaports that serve this district. Dairen is the leading port of entry, as its harbor has more extensive shipping and wharfage facilities than that of Newchwang. Moreover, the latter port, besides being closed with ice during four winter months, possesses a poor river channel and inadequate harbor and wharfage accommodations.

The German firms gave no credit for spot cargo, but allowed their customers two months with 1 per cent discount in which to clear their ordered cargo and settle exchange. Where there was competition they would cut the prices of well-established "chops" in order to get the business. They always quoted in sterling for ordered cargo and taels for spot cargo and arms and ammunition. The Russian firms do business only in spot cargo and give from 16 days' to one month's credit. The terms given by the Japanese are 16 days for spot cargo and one month for ordered cargo, secured on documents signed by the customers. Payments must be made in the gold yen (49.85 cents) or its equivalent. In cotton cloths, which are carried in stock, Mitsui & Co., the leading member of the Manchurian Cotton Exporters' Association, usually give 30 to 45 days' time, and occasionally up to two months. Some of the Chinese merchants buy outright from the Mitsui Co., while others sell for it on the ususal 2 per cent commission. Extensions of credit are made as required, the customers being charged interest, the rate in such cases often being high. The Japanese are very keen on securing trade at any cost, and when there is competition or a surplus stock to dispose of, they will sell at or below cost in order to get the business. In such cases they will also allow their customers two months or often 100 days for payment. British firms give two months' credit on ordered cargo and one month to 45 days on spot cargo, with an allowance of 33 sen ($0.164) for 1,000 yen ($498.50) per day for payment made before due date. Extensions of credit are made as required, the customers being charged a reasonable rate of interest. These credit systems are in use in normal circumstances; the European war has made it necessary for the foreign merchants to restrict them somewhat. Quotations should always be in gold and include duty as well as c. i. f. rates nearest available port of destination.

FUNCTIONS OF THE COMPRADOR.

As already explained, all transactions with the Chinese merchants must take place through the medium of the comprador. He is absolutely essential and without him no American firm can hope to carry on successful business. He must be conversant with Chinese business methods and acquainted with the weights and measures, methods of transportation, and traffic regulations, which vary in each district and on the different railways. He accepts responsibility for all money that passes through his hands, and this function alone—considering the many kinds of currency, the varying rates of exchange, and the prevalence of counterfeit money—makes him a necessity. As all payments go through his hands, and as he finds the customers and guarantees all transactions between them and the firm, he must be able to furnish adequate guaranties to his employer for all contracts entered into and all business transacted through him.

STORAGE PENDING SHIPMENT TO INTERIOR POINTS.

The distribution of goods for sale in the interior points is entirely in the hands of Chinese agents. Pending interior shipment the goods are stored in either railway warehouses or the warehouses of the importers. The rates for storage in railway warehouses are exceedingly high. Telegraphic communication is available only in the large centers, but communication with the smaller places is maintained by post over the poor roads.

SPECIAL TAXES.

Foreign goods that have paid the regular import duty at the port of entry and are intended for transshipment to any of the opened towns in Manchuria are entitled to an "exemption certificate," which protects them from further taxation en route or at destination. If the goods are intended for transshipment to the interior—that is, any place not a treaty mart—the owner has the option of paying the inland taxes or likin en route or of paying half the import duty additional, not exceeding a nominal 2½ per cent ad valorem, and obtaining a "transit pass." This certificate exempts the goods from all further inland charges. The provincial authorities make sporadic attempts to impose inland taxes on foreign goods in the hands of the native merchants. These taxes, with a few exceptions, amount to 3 per cent. A production tax is levied at the rate of 1½ per cent on all kinds of native produce originating in the Province, and a consumption or arrival tax is levied on foreign (a point still in dispute between the Chinese authorities and the consuls) and native goods alike at the rate of 2 per cent at the place where the goods are disposed of for sale. The foreign consuls have won their point so far that the Chinese authorities no longer attempt to tax foreign goods in an open mart, even when they are in Chinese hands. Numerous other taxes, such as 7, 4, and 9 per mille tax, the sea and hill tax, and the business tax, have been strenuously and successfully resisted. The Chinese assert that the business tax has nothing to do with foreign goods imported by foreigners, it being merely a tax on the business capital and selling turnover of Chinese merchants. There are some other special taxes, such as on salt, wine, tobacco, timber, plants, live stock, and vehicles. Foreigners hold that the treaties exempt them and their goods from the payment of these taxes and that goods of foreign origin retain that character until they pass into the hands of the Chinese purchaser. The practice has grown up among the large importing firms of compounding with the inland tax office for payment of provincial taxes. By a special arrangement, the former, by paying to the latter a stipulated amount per annum, becomes exempt from the payment of the internal taxes.

Foreign trade in Manchuria goes mostly up and down the foreign railway lines, upon which, and within the railway settlements attached to which, no likin taxation is permitted. All railway material comes in free of duty. Many interior cities have been opened to foreign trade and enterprise, at which foreign goods may be delivered upon payment of one import duty only, thus escaping the transit dues or in the alternative the likin charges levied in all other parts of China. Manufactories may be established by foreigners in any of the marts or railway settlements, and the products so far escape the taxation that Chinese factories in other parts of China have to pay. All railborne goods entering or leaving Manchuria via Antung enjoy a one-third duty reduction. For these reasons it may be conceded that as regards taxation the foreign trader occupies a more favored position in Manchuria than in any portion of China proper.

IMPORTANCE OF PACKING.

Special attention must be given to the packing of all goods intended for exportation to the Mukden district. The cases should be strong as they pass through many hands before reaching Mukden and many more before arriving at their destination in the interior. The severe climatic conditions must also be taken into consideration in preparing for shipment goods of a perishable character.

PRINCIPAL ARTICLES IMPORTED.

The principal articles imported through the Maritime Customs at Newchwang during the years 1904, 1913, 1915, and 1918 were as follows:

Articles.		1904	1913	1915	1918
Bags, gunny	number	2,997,700	2,662,894	1,623,675	1,011,082
Candles	short tons	549	$44,218	[a] 1	$10,282
Cigarettes	value	$297,221	....	[b] 59,284	....
Cotton piece goods:					
Foreign—					
Cloth, Japanese	yards	....	7,067,296	2,960,203	1,534,976
Flannel	pieces	46,468	25,238	33,490	3,884
Italians	do	88,670	11,813	58,244	13,225
Drills	do	454,711	154,574	67,580	64,181
Jeans	do	139,480	357,221	244,168	210,615
Sheetings	do	1,148,884	354,410	188,515	103,720
Shirtings	do	220,328	465,900	193,496	99,087
Chinese—					
Cloth, native nankeens	tons	....	1,212	1,094	751
Drills	pieces	....	4,035	76,375	77,350
Sheetings	do	....	50,000	172,210	190,920
Cotton yarn:					
Foreign	tons	10,421	5,458	3,374	1,906
Chinese	do	....	274	1,340	2,896
Dyes	value	$74,277	$181,605	$764	$27,141
	tons	21	1,986	524	145
Flour	value	$5,197	$4,648	....	....
Glass, window	boxes	4,730	3,612	....	700
Iron and steel, and manufactures	tons	....	7,471	3,158	418
Leather	do	....	....	46	....
Machines, sewing and knitting	value	....	....	$1,343	....
Machinery	do	....	....	$3,768	....
Matches	gross	1,891,265	884,653	554,225	128,789
Needles	thousands	130,425	279,233	147,554	79,714
Oil, kerosene	gallons	4,762,640	10,063,665	8,196,629	3,047,681
Paper	tons	....	1,006	1,097	892
Soap	value	....	$67,476	$46,256	$96,311
Sugar	tons	17,336	14,489	13,702	13,611

[a] Tons. [b] Thousands.

As the bulk of the import trade of this district and of exports as well passes through Dairen and Antung, the table of Newchwang's import trade is of value chiefly as giving the principal goods entering the district.

Aside from cotton piece goods, kerosene, tobacco, and sewing machines, articles that find limited markets in which American manufacturers and exporters may be interested, are stoves, agricultural implements, tools, corrugated iron, roofing, watches, and bicycles. There is no appreciable demand as yet for automobiles, typewriters, furniture, and other articles that usually find markets where manufacturing is only fairly well developed. South Manchuria is chiefly devoted to agriculture, and the standard of living is low. In a rigorous climate such as this one would expect to find a more extensive use of woolen goods, especially as large quantities of low-grade wool are produced on the near-by plains of Mongolia; however, the items under "woolen goods" in the Maritime Customs returns appear insignificant. Twelve years ago American piece goods practically held the market in South Manchuria. To-day, out of a total of $24,000,000, the share of the United States is less than $2,000,000. This market has been taken by the Japanese. Russian cotton cloth is also much in evidence, but the supply is limited to prints. These Russian goods have forced their way into the market by reason of their good quality, suitability of design, and moderate price. Large stocks, long credits, and numerous agencies have also aided the trade in this line. The market for American flour has been erratic, depending chiefly upon the rate of silver and the wheat crop conditions in Manchuria and in America. There are a number of modern flour mills in Manchuria, and with good crops thay are able to obtain wheat at a price that enables them to compete successfully with American flour. The lumber trade, in which American mills took an important part in the past, has to a large extent been taken over by local lumber interests. However, a fair demand still exists in connection with the railways and its enterprises and for use in the better classes of buildings. Kerosene oil is carefully looked after by the Standard Oil Co. of New York, and the trade of that company has steadily increased. This company has agencies in all the principal markets of this district. The other articles in which American manufacturers take part have not assumed sufficient volume to call for comment.

DEVELOPMENT OF MARKETS FOR AMERICAN PRODUCTS.

Having regard to the simple requirements of these people, the development of trade in modern manufactures, machinery, household conveniences, implements, etc., is not a matter of competition so much as of education and the creation of a demand. That Chinese do not quickly take to foreign innovations is probably due to their lack of knowledge of foreign conditions and the instinctive desire to avoid experiments that may prove expensive and fruitless. They are not, however, slow to adopt new methods when convinced that there is advantage or profit in doing so. With regard to a large number of articles of American manufacture shown as coming into this market, the trade is fortuitous. Consumers have only heard of the articles. Many items are carried in stock at Shanghai and at Japanese ports and distributed to Manchuria through native merchants; other items are ordered spasmodically through local commission merchants or middlemen. The development of markets under existing conditions necessitates acquaintance with the peculiar customs and requirements through demonstrations and close and constant touch with the trade. In a number of lines American products are becoming better known and consequently gaining ground. Many local importers and merchants who have studied trade conditions in Manchuria are of the opinion that there are several lines of American goods for which fair markets could be developed if they were energetically pushed in the right way. Chief among these lines is cotton woven fabrics, other lines being agricultural implements, stoves, roofing, hardware, and watches. This effort, however, would require an extensive distributing organization having home affiliations supported by the manufacturers themselves, with the intention of doing a direct business, leaving out the brokers and trading companies so that all unnecessary charges may be eliminated. The organization in Manchuria should be built up with young men who would come out prepared to learn the language and customs of the people, to make the service a life career, and to cooperate with native assistants. It might be found profitable to conduct a joint import and export trade as the best method of minimizing the risks attendant upon the wide fluctuations in exchange values. American manufacturers should cooperate in sending out representatives to go over the field with this object in view. If intelligently handled such a distributing system would conduce to permanency as well as to the development of these markets.

SHIPPING FACILITIES FOR TRADE WITH UNITED STATES.

Of the three seaports serving South Manchuria—Dairen, Antung, and Newchwang—only the last named is located in the Mukden consular district. The foreign commerce of South Manchuria finds its chief entrepôt through Dairen. There are no direct shipping facilities between the United States and Newchwang. This port, situated near the mouth of the Liao River and connected with both the South Manchuria Railway and the Peking-Mukden Railway through branch lines, is provided with good facilities for transportation and connecting arrangements between railways and steamers. Except for the winter months, Newchwang is in direct steamer communication with the North China ports as well as Shanghai and the Chosen and Japanese ports. The Nippon Yusen Kaisha maintains a regular steamship service weekly with the important ports of Japan, making connection with the company's American line; this company also maintains a regular steamship service every third day between Newchwang and Tientsin. Jardine, Matheson & Co., Butterfield & Swire (both British), and the China Merchants Steam Navigation Co. (Chinese) maintain sailings every other day between Newchwang and Shanghai. The main inland water route is the Liao River, which is navigable for junks for several hundred miles as far as the Mongolian frontier. Because of the competition of the railways and the neglect of the river, this trade has been greatly reduced in recent years.

While the war has not affected the regular sailings on these lines, the freight and marine insurance rates have risen considerably and are constantly changing. In addition to the above companies in Newchwang that are in a position to attend to shipments, there are the firms of E. S. Leeds (British), Bandinel & Co. (British), and Reynaud & Colinet (French). The Mitsui Bussan Kaisha (Japanese) maintains a branch at Newchwang.

FACILITIES FOR TRAVEL.

South Manchuria is traversed by what is fast becoming a leading route of travel between Japan and China and between the Far East and Europe. The Japanese, Chinese, and Russian railway systems cooperate by maintaining connecting schedules and through ticket services on the passenger trains. Three railway lines converge at Mukden—the South Manchuria (Dairen-Changchun) Railway, the Peking-Mukden Railway, and the Antung-Mukden line—so that it is through Mukden that all, except the few whose business or inclination takes them via Vladivostok, must travel by railway from Japan and China proper into Europe or vice versa. Ordinarily there is a thrice-weekly express train service over all these lines, making connection with the Trans-Siberian route at Changchun, but owing to the European war the through service has been reduced to but one train a week. Six mail trains pass through Mukden daily over all the Japanese lines. On the Peking-Mukden line at present there is a weekly train de luxe, connecting with the Japanese and Russian through services, and two through trains with no sleeping cars; there are also two mail trains daily between Mukden and Peking.

The best hotels in South Manchuria are those managed by the South Manchuria Railway. Each is called the Yamato Hotel; in this district there are two, one at Mukden and one at Changchun.

They are conducted on the European plan, and their furnishings and cuisine are considered excellent. The charges range from 3.50 to 6 yen for a room per day, 1 yen for breakfast, 1.50 yen for luncheon, and 1.75 yen for dinner. The Yamato Hotel at Mukden forms part of the station building. The only hotel in Newchwang of European ownership and management is the Astor House. It is centrally located on the wharf. The charges are $5 to $7 Mex.[1] per day, including meals. The other towns of this district have semi-European hotels managed by Japanese, but their accommodations are poor. The charge is usually 5 yen per day, including meals.

South Manchuria may be visited at all seasons of the year. Travelers must be provided with Japanese currency within the Japanese railway zone and Chinese money everywhere else. American gold can always be converted into these currencies at a fair rate of exchange at the railway hotels. Passports are not required of travelers on the Japanese and Chinese railways.

TRADE ORGANIZATIONS IN DISTRICT.

Chinese chambers of commerce exist in all the cities and towns in this district of 25,000 or more population—that is, Mukden, Newchwang, Changchun, Hunchun, Liaoyang, Kaiyuan, Fushun, Tiehling, and Kirin. Their organization is practically the same in the different cities.

Their functions are to keep informed regarding the general conditions of trade; to study modern methods of trading; to endeavor to improve the quality of native products and to extend their market; and to decide disputes and claims between the merchants of the chamber and between the merchants and the government. The by-laws empower the chamber to impose fines upon any member guilty of forging trade-marks or engaging in any illegal trade.

These chambers exert considerable influence over the political and general administrative affairs of their districts, as, for instance, by opposing exorbitant taxes, assisting in the maintenance of order, regulating prices, etc., and they have much to do with the money exchange and banking. They also contribute funds for educational purposes and for charity. Their officers consist of a chairman, a vice chairman, a secretary, councillors, and managers. The Mukden chamber has more than 1,000 members, each paying a subscription every four months, ranging from $1 to $50, small coin, according to volume of business. The city is divided into 16 districts, each of which has its own branch chamber under the control of the general chamber.

Through the efforts of the American consulate general, an American section of the Chinese Chamber of Commerce of Mukden has been organized. A special space has been allotted for American catalogues and trade publications.

Besides the chamber of commerce there are in Mukden an artisans' guild, an agricultural guild, and a money-exchange guild. The functions of the last-named are to fix the daily rates of exchange, to enforce the regulations governing exchange operations, to see that settlements are promptly made at the time stipulated in forward contracts, and to arbitrate disputes between the brokers and the exchange shops.

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[1] See footnote on p. 84.

Its officers consist of a president, a vice president, and a staff of five executives. This guild has 198 members, who bear equally the working expenses computed at the end of every month.

There is a Japanese chamber of commerce at Mukden and all the other towns mentioned above. The functions of each of these bodies embrace the following: Investigating with regard to the development of trade and industry; presenting to the authorities its views relating to the drafting, revising, and enforcing of trade regulations; replying to questions put before it by the authorities; compiling and publishing trade statistics; certifying as to prices of merchandise and places of production; nominating at the request of the authorities appraisers and witnesses; arbitrating trade disputes, etc. Its officers consist of a president, a vice president, five standing committees, and clerks. The membership is limited to 15.

In addition to the Chinese and the Japanese chambers there is also a foreign chamber of commerce at Newchwang.

AMERICAN INTERESTS.

American interests in South Manchuria are principally commercial and missionary, and while they are relatively small at present, yet prospectively they are considerable. Six American firms are engaged in trade in the Mukden consular district, while there are 34 American residents there. American trade is being slowly but none the less surely extended as a result of two decades of effort. Merchants and missionaries are extending American enterprise throughout the district. Geographically, politically, and economically, those interests, as a component part of the general American interests in the Far East, call for the safeguarding of the position of equality of opportunity that Americans have always assumed in Manchuria.

The Seventh-day Adventist is the only American missionary society operating in Manchuria. In the autumn of 1914 two families settled in Mukden to inaugurate its work. In 1915 the society acquired a large site favorably situated in the western suburbs of Mukden, and it was planned to erect two mission residences and later a school. Another family was added late in 1915, and a physician and other workers were expected to join the forces soon. Thus far the work carried on has been mostly evangelical. Plans are under way, however, to establish boys' and girls' schools, as well as dispensaries, in connection with the evangelical work. Besides Mukden, chapels have been opened in Liaoyang and Tiehling, as well as in North Manchuria, and within a short time a foreign family will open up the work in Changchun and locate there.

South Manchuria has long been an important center of Scotch and Irish missionary activity. The Presbyterian congregation in Mukden is the strongest in Manchuria, both numerically and financially. Throughout the Province there are 32 congregations and 117 outstations. Expansion led in 1897 to the creation of a synod of Manchuria, which is now joined with China proper to form the General Assembly of the Presbyterian Church of China. Christian literature is provided and distributed by the British and Foreign Bible Society, which has maintained an agency in Mukden since 1883. The present head of this society maintains a school and industrial home for blind girls, where about 40 girls are cared for and taught knitting and other similar occupations. The Presbyterian church in Manchuria numbers 14,561 men, 6,596 women, and 4,779 children; it has also 22 foreign and 17 Chinese pastors and 939 native deacons, with 1,420 active workers. The varied and extensive work of these missions along educational and medical lines has already been described (see p. 213).

In the diocese of Mukden there are 30 missionaries of La Société des Missions Etrangères de Paris, who have 70 churches and 18,000 Christians. There is an orphanage at Mukden under the guidance of three Soeurs de la Providence. At this institution 100 abandoned children are fed, clothed, and educated.

American commercial interests in this district, except as represented in the importation of a few staple American products, are confined to general lines of imports and exports, and are expanding but slowly. It is to be admitted, however, that in commercial and other nonmissionary lines of activity American interests compare favorably with those of the European nations in the field.

The effects, direct and indirect, of the protracted war in Europe on American trade interests have been adverse. The cost of all foreign goods has increased and this increase has affected considerably the prices of native commodities. The only country that has been gaining is Japan.

The most promising fields for American commercial activity are described on page 241.

GENERAL TRADE SUGGESTIONS.

The need for reliable American import and export firms and the lack of direct shipping as well as banking facilities constitute the chief obstacles to the development of American trade with Manchuria. Under present conditions American exporters are compelled to look to their natural competitors to convey their goods to the country of destination, and to sell and distribute them. Moreover, if there were an American bank in Manchuria, the American gold dollar could be used in business quotations and transactions, and letters of credit could be issued in terms of gold dollars directly by the bank in one country, payable to the exporter at the bank in the other country, instead of the more expensive and roundabout way of commissioning London banks to issue sterling letters of credit to settle obligations in either country. It is believed that the present is an especially favorable time for Americans to make a bid for a share of this market. American manufacturers, or a combination of them, whether exporters of competitive or noncompetitive articles, should establish a selling organization with agencies at the principal markets; have its own technical experts and salesmen; offer goods suited to the market; carry stocks at the distributing centers from which any quantity desired can be sold; give away samples; advertise extensively; and grant long credits. In some lines it is believed that such a system could be adopted with profit and with a prospect of permanence. In most lines, when American products have once become well known, they gain ground.

As to the trade in American cotton goods, it is suggested that the present would be an opportune time for the leading American manufacturers and exporters to combine in sending a representative to investigate the conditions surrounding this trade with a view to establishing an extensive American-managed distributing agency in Manchuria. Such a syndicate might well include capitalists who have investments in banking institutions and steamship lines interested in Far Eastern trade. At the same time the American mills should manufacture a line of piece goods especially for this market at prices competing favorably with Japanese lines. The local agency would have to be given strong support and be permitted to grant terms as favorable as those extended by any of the competitors in these lines, Japanese or European. Stocks should be carried at the principal distributing centers and the goods should be shipped via Japan and Chosen to Antung or directly to Dairen, instead of to Shanghai, in order that advantage may be taken of the one-third reduction of customs duty at Antung on rail-borne goods and of the reduced through freight rates on the Japanese railways, which were designed to favor both Antung and Dairen. As these are the shortest and cheapest routes for American goods destined for the Manchurian market, they should be used by American manufacturers and exporters; American trade would thus share the facilities and secure the benefit of the modern business machinery that Japan is providing for its own commercial development in Manchuria. To take such a step now would possibly mean the recovery of some of the piece-goods trade that has been taken away from the United States in the past 10 years. American manufacturers may expect to share in the prosperity of the district if they are willing to make a serious concerted effort to participate in the trade.

In promoting trade relations in Manchuria it seems advisable as well as practicable for American commercial interests to act through, and in certain instances to combine with, the Japanese, who possess such superior facilities for handling this trade. Broadly speaking, from the economic point of view, it seems more advisable for American merchants to work in concert with the Japanese than to attempt to compete with them in Manchuria—at least until the obstacles mentioned above shall have been removed. At the same time Chinese officials and merchants are anxious for American business houses to establish distinctively American branches or agencies in this and other parts of Manchuria. They invite American capital to be used in developing commercial and industrial enterprises there and urge that direct transportation and banking facilities with the United States be arranged.

SHANGHAI CONSULAR DISTRICT.

By Consul General Thomas Sammons.

LOCATION AND AREA.

The Shanghai consular district comprises the Province of Chekiang and that part of the Province of Kiangsu south of the Yangtze River, except the prefectures of Kiangning and Chuikiang in the northwest corner. It is situated on the east coast of China.

The Province of Chekiang is situated between 27° and 31° north latitude and 118° and 122° east longitude. That part of Kiangsu Province which is included in this district is situated between latitude 30° 45′ and 32° and longitude 119° and 122°. In latitude the whole district corresponds approximately to the position of Texas.

The area of Chekiang Province is 36,670 square miles, and the area of that part of Kiangsu Province included in the Shanghai district is about 12,867 square miles; making a total of approximately 49,537 square miles, which is just a little larger than the State of New York.

POPULATION.

The Maritime Customs estimate for 1910 gives 23,980,000 as the population for Kiangsu Province and 11,800,000 for Chekiang Province; whereas the census taken by the Minchengpu (Department of Civil Affairs) in Peking for the same year gives 17,300,000 for Kiangsu Province and 17,000,000 for Chekiang Province. The former is accepted as being more nearly accurate. It is estimated that the population of this entire district is about 25,000,000, for while only about one-third of the area of Kiangsu Province is included in this district, it is the most densely populated section and includes about one-half of the total population.

The urban population of the principal ports of this district is estimated at more than 3,165,000, divided as follows: Shanghai, 1,500,000; Soochow, 500,000; Hangchow, 600,000; Ningpo, 465,000; and Wenchow, 100,000.

The density of the population for Chekiang is given as 463 per square mile, and for Kiangsu as 448 per square mile. The State of Rhode Island, according to the census of 1910, has, in the United States, the most nearly corresponding density of population, namely, 508.5 to the square mile.

PHYSICAL FEATURES.

Chekiang is a Province of wooded hills and fertile valleys. The west and south are mountainous and are not so densely populated as the richer districts on the east and north. The inland hills, the many rivers, and the groups of islands make Chekiang one of the most picturesque of the Provinces of China.

Kiangsu Province is a fertile plain crossed by the Yangtze River from east to west and by the Grand Canal from north to south. It has been called "the garden of China."

CLIMATE.

Three seasons prevail in this district—the winter monsoon, comprising the six months from September to February; the middle monsoon, from March to mid-April; and the summer monsoon, lasting from April to the end of August.

March is a month of variable winds, but with a marked prevalence of southeast winds. In April the summer monsoon sets in. In May it begins to blow from the southeast and continues until August. At the beginning of September the winds change suddenly, and the new monsoon, with its northeast, north, and northwest winds, lasts until spring, but the winds lack the regularity and strength of those of the summer monsoon season. May and June, as well as October and November, are generally ideal months. The heated term commences in July and often lasts until the end of September. The excessive heat is, however, often relieved by stiff breezes and heavy thunderstorms. December is sometimes a pleasant month, but January, February, and March are disagreeable months, it generally being very cold and damp. There is usually a little snow in February, but ice rarely exceeds three-fourths of an inch in thickness in ponds and ditches, although ice over an inch in thickness was formed during the 1916-1917 season.

The following figures, compiled from data kindly furnished by the Rev. R. P. H. Gauthier at the Sikawei Observatory, show the average rainfall per year for the 10 years ending in 1910, the average number of days per year on which rain fell during the same period, and the minimum and maximum temperature; also the average temperature for the year 1916. The figures given for Nanking (except the average temperature, which is also for the year 1916) are for the 5 years ending in 1910.

Districts.	Temperature.			Rainfall.	
	Highest.	Lowest.	Average.	Number of days.	Inches.
	°*F.*	°*F.*	°*F.*		
Nanking, or northwestern	104	14	59	137	44.0
Shanghai, or northeastern	103	10	59	133	45.7
Ningpo, or middle eastern	108	13	62	144	52.4
Wenchow, or southeastern	104	22	65	170	61.3

POLITICAL SUBDIVISIONS.

The provincial governments are made up of military governors at each capital, with commissioners of defense at each important military point; civil governors, with a bureau of foreign affairs, and with branch bureaus of foreign affairs at each treaty port; provincial departments of finance, under which are the various revenue bureaus, including the customs administration at each port; the department of justice, which consists of the provincial high courts, the courts of chief procurators, metropolitan courts, police courts, etc.; also the taoyin (intendants) of circuits located at each of the principal cities, with numerous magistrates under them at important centers, who have court jurisdiction over the neighboring territory.

The foreign residents of Shanghai, as at all open ports, are subject to the immediate control of their consuls in judicial matters. British subjects are under the jurisdiction of the British Supreme Court for China, opened in September, 1865. In 1906 the United States Court for China was established on lines similar to the British Supreme Court.

Chinese citizens resident in the International Settlement at Shanghai are under the jurisdiction of the Shanghai Mixed Court, established in 1864. Cases in this court are heard by a Chinese magistrate and a foreign assessor who acts as the deputy of his consul general. The consulates at present having regular assessors are the American, British, Italian, and Japanese. Assessors from other consulates sit only in cases that concern the interests of their own nationals. Chinese law, modified to an extent by foreign procedure, is the law of the court; and its language is Chinese. Foreigners of such nations as have not acquired extraterritorial privileges by treaty and are not represented by consuls also come under the jurisdiction of the Mixed Court; at the present time this provision also includes German and Austrian subjects, whose consular officers have been withdrawn from China. The French Concession has its own Mixed Court on the same lines, the assessor being the deputy of the French consul general.

A Court of Consuls, established in 1870, enables the public to sue the municipal council of the International Settlement.

In local affairs, the International Settlement of Shanghai is governed by the municipal council, which consists of nine members of various nationalities elected annually by the ratepayers. These members are chosen from among the most prominent business men of Shanghai and give their services free. Ratepayers are householders who pay taxes on an assessed rental value of at least 500 taels, or who are owners of land to the value of 500 taels.

The French Concession is governed by a council of its own consisting of eight members, of which four are French and the four others are of different nationalities. Their resolutions are subject to the sanction of the French consul general. Four members retire annually and new members are elected by all owners of land or occupants of houses paying a rental of 1,000 francs per annum, or residents with an annual income of 4,000 francs.

Meetings of ratepayers of the International Settlement are held annually in March, at which time budgets for the coming year are voted upon, the report of the previous year passed upon, and the incoming council instructed as to the policy to be pursued. No important measure can be undertaken without reference to a meeting of ratepayers, any 25 of whom can call a special meeting and whose decisions are of equal validity with the decisions reached at the regular annual meetings. The cosmopolitan system of government has worked, in general, very satisfactorily during the past. The international municipal council is divided into departments, as follows: Public works; police; fire; health; educational; electrical; and financial.

The French Concession is managed on practically the same lines as the international municipal council, but on a much smaller scale, the French having no electrical department. Electricity for the French municipal council is furnished by a French private concern.

The natives outside of the French and International Settlements are governed by the native authorities.

Title deeds for land in the foreign settlements are issued at the present time by the commissioner for foreign affairs and the taoyin (intendant) of Shanghai, who jointly affix their seals thereto.

In recent years there has functioned an office known as the "Hui Chang Chu," or joint measurement office, the duties of which are, as its name indicates, to make the official measurements of land, in conjunction with the municipal cadastral office, and in the presence of representatives of the foreign renter and of the consulate of his native country.

The taoyin, or intendant of circuit, has charge of purely native civil affairs. Up to a very recent date the special envoy of foreign affairs held also the office of taoyin.

There are native police stations scattered over the districts around Shanghai, and these are under the control of a superintendent who is, in turn, responsible to the taoyin.

The military governor of Shanghai has charge of the arsenal and resides there; the movements of Chinese troops, etc., are all under his control.

The Chinese Maritime Customs at Shanghai, as at all other treaty ports, is under the direction of a commissioner of customs, who takes his orders from the Inspector General of Customs at Peking. The headquarters of the customs authorities in Shanghai is situated on the Bund facing the river. The superintendent of customs grants permission for the importation and exportation of contraband goods.

EDUCATION.

There are 50 institutions in Shanghai for the education of Chinese, of which about 30 are conducted by missionary societies. There are 5 municipal schools, 8 schools under Chinese management, and 7 special schools and colleges.

The most important of the last-named is St. John's University, situated at Jessfield, which was incorporated under the laws of the District of Columbia, and, by its charter, is authorized to confer upon its graduates the degrees conferred by the universities in the United States.

The other important institutions are the Government Institute of Technology, on Sikawei Road; the Fuhtan College, also at Sikawei; the German Medical School (recently moved to Woosung); the Harvard Medical School for China; the Nanyang Railway and Mining College, on North Szechwan Road; and the Aurora University, a Roman Catholic institution, on Avenue Dubail.

There are 14 schools for the education of foreign children, among which are 2 public schools for boys and girls; 2 schools for boys and girls known as the Thomas Hanbury Schools, which are under the control of the international municipal council; the French Municipal School, under the French municipal council; the Shanghai American school, which, though but recently established, is proving a great success; the Jewell school, American; the Cathedral school, British; the Shanghai High School and Kindergarten, British; the St. Xavier School for boys; the St. Joseph's institution for girls, and two others, managed by the Roman Catholic Missions. There is also a school for Jewish children, and one for German children, as well as two schools for Japanese. With the exception of the American and German schools, all the schools are operated on British school lines, preparing children for the Cambridge local examinations. Higher education is not available in Shanghai for the children of foreigners, and those who can afford it send their children home for such higher education. A very few have recently entered the Hongkong University, which, owing to its proximity to Shanghai, will probably later play an important part in the higher education of foreign children living in Shanghai.

There are approximately 10,000 Chinese pupils in the various schools established for their benefit. Children of foreign parents attending school, excluding Japanese, number approximately 2,900.

Besides the above, a considerable number of Chinese children are doubtless being taught under the old-style Chinese teachers, each teacher having, on an average, between 20 and 30 pupils. Statistics concerning the education of this character are not available, as none are published. Each of these schools is run by a single tutor for his own benefit. Schools of this kind are to be found all over the towns and in the suburbs, and the tutors eke out a precarious existence, as the pupils belong to the poorer classes. It is not practicable to give an estimate of the literacy of the population of this district, but the general opinion is that the masses are generally uneducated.

The demand for foreign school supplies, especially furniture, is very limited. Most of the furniture can be turned out locally, according to patterns supplied, much more cheaply than it could be imported. Scientific supplies, of course, have to be imported. A school operated by British people will generally import its requirements from Great Britain, and persons from other countries generally import from their own home country.

AGRICULTURE.

The district around Shanghai is preeminently agricultural. The soil is very fertile, consisting of alluvia carried down by the Yangtze; and the latitude, together with the fact that the rainfall is pretty evenly distributed throughout the year, permits the production of two crops a year. The spring crops, gathered in May and June, consist principally of wheat, barley, rape, and beans. The fall crops, gathered in September and October, are mainly cotton and rice.

In the cultivation of their farms, the Chinese still adhere to antiquated methods, and, so far as indications now go, no early improvement can be looked for in this respect. So long as the earning power of the population remains as low as it now is, it is hardly possible to expect the Chinese farmers to invest in modern implements, fertilizers, etc.

An experimental poultry farm, operated on foreign lines, has been established, and it is understood that it has been fairly successful up to the present time. It is called the Kiangnan Poultry Farm and is located near the Shanghai-Nanking Railway Station. The exportation of eggs and egg products is assuming an important place in the trade of this port, and this should contribute to make poultry farming very profitable.

Although considerable quantities of mining products pass through the port of Shanghai, there are no mining activities in this district.

COMMUNICATIONS BY WATER.

Shanghai is considered to be the chief port of northern China for the transportation of products to the outside world, and of imports from the whole world to the interior of China. Vessels drawing not more than 24 feet of water may navigate the Whangpoo River to Shanghai if the masters so desire, though most of the larger mail steamers anchor at the Woosung outer anchorage about 14 miles from the Shanghai customs wharf.

As an indication of the importance of the shipping of Shanghai the following figures, showing the tonnage of steamers and sailing craft, foreign and native owned, cleared and entered at Shanghai, are given for the five years ended in 1917: 1913, 19,580,151 tons; 1914, 18,950,918 tons; 1915, 16,849,638 tons; 1916, 16,819,095 tons; 1917, 15,716,017 tons.

Besides the above, many small ships and barges clear for inland ports, the total clearances and entries being: 1913, 174,466 tons; 1914, 319,804 tons; 1915, 357,192 tons; 1916, 169,880 tons; 1917, 174,466 tons. In addition, more than 16,000 junks and 1,500 steam launches entered and cleared from and to interior ports during 1917.

Shanghai has direct steamship communication with the principal ports in Europe and America. Lines also run to and from Australia, India and Japan. Steamers leave daily for coast and river ports. Motor launches, steam launches, and junks ply regularly in inland waters.

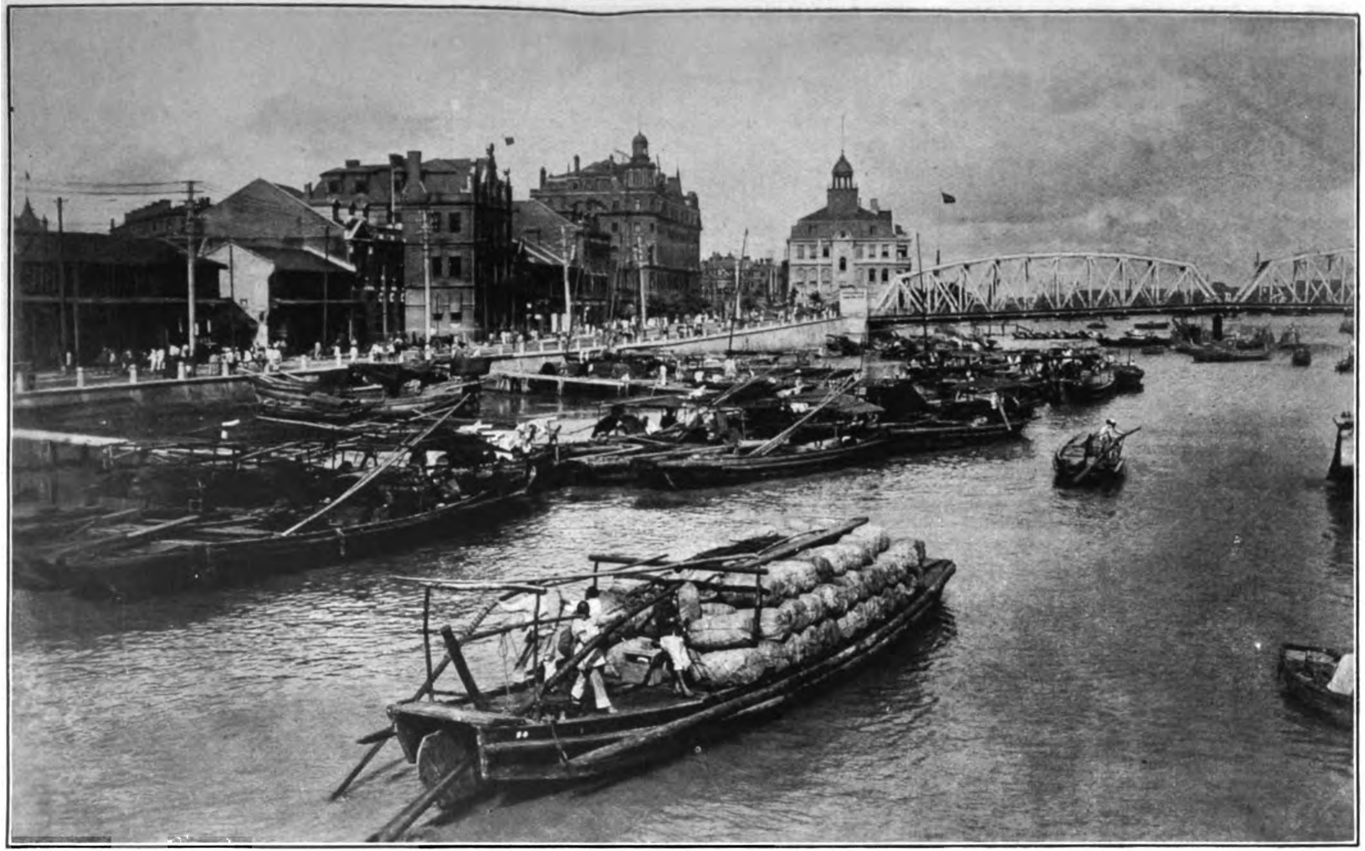
In general, it is understood that foreign goods imported into Shanghai pay the usual 5 per cent or specific duty and, by paying an additional one-half of the duty so levied, are entitled to a "transit pass," which is supposed to carry the goods to any interior port free of all further charges.

The transportation rates in normal times, per ton of 40 cubic feet (general goods), are approximately as follows: To London, $13.60 gold; to New York, via London, $16.36; to Marseille and Havre, $13.37; to Pacific Coast ports, $8. To New York, via the Pacific, on general goods, the rates range from $2.25 to $6 gold for 100 pounds.

At the present time (May 1, 1919) freight rates to the Pacific coast on general goods range from $15 to $35 gold per ton, except on raw or wild silk, on which latter the rate is $7.50 per 100 pounds. The present rate on silk goods, including pongee silks, is $25 for 40 cubic feet, plus 1 per cent ad valorem.

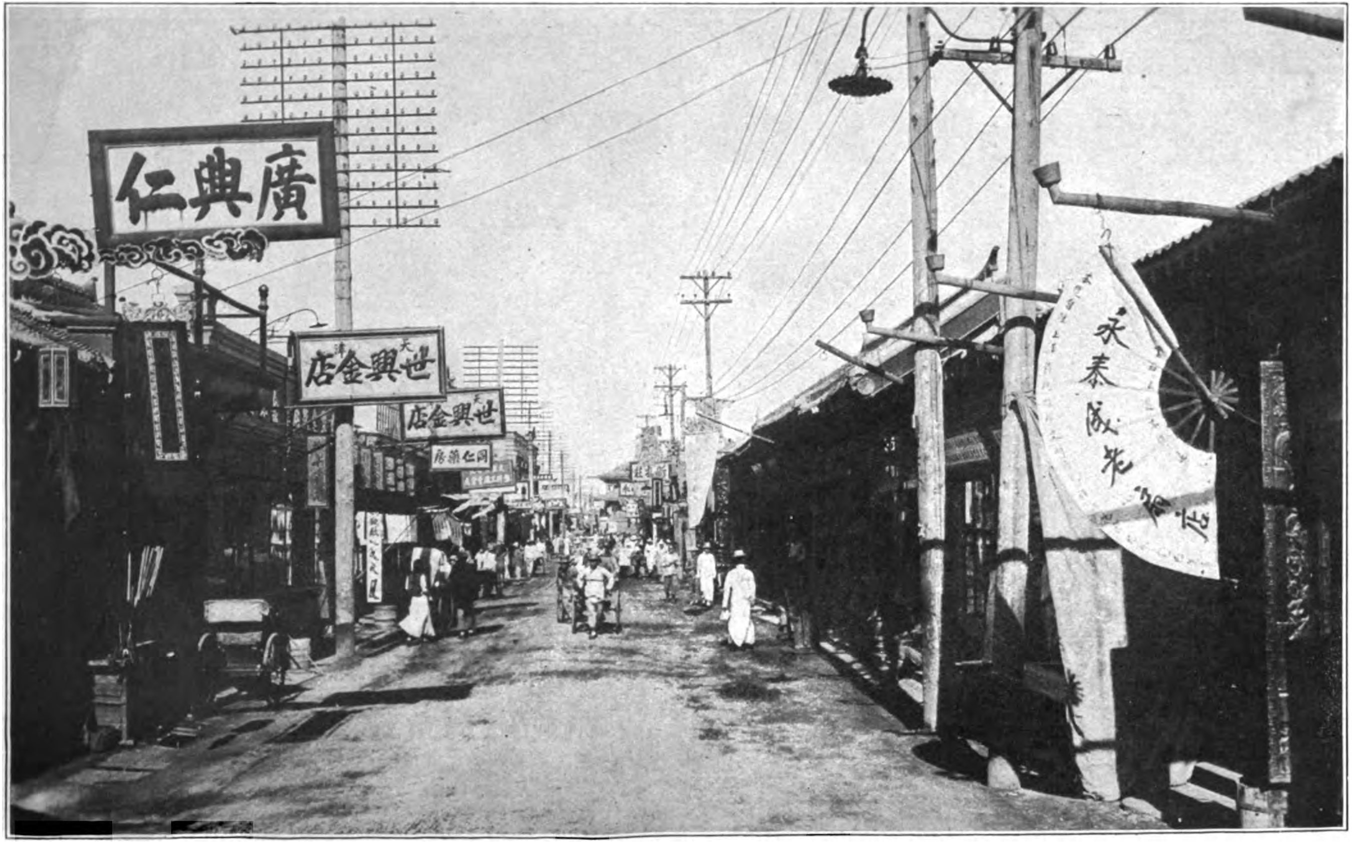
Freight rates from coal ports in Japan are normally $0.50 to $0.55 gold per ton, but at the present time they are approximately $1.50 per ton.

The following are the passenger rates to the principal foreign ports, alphabetically arranged, the prices being given in United States currency; where different prices are given for any one port, the difference in fare is governed by the different classes of steamers to that port:



Photograph by E. M. Newman.

FIG. 24.—AMERICAN MERCHANDISE AT SHANGHAI.



Photograph by E. M. Newman.

FIG. 25.—STREET SCENE IN SHANGHAI.

Ports.	First class.	Second class.	Third class.	Ports.	First class.	Second class.	Third class.
Aden	$220	$150	....	Nagasaki	$15-20	$8-11	$4-5
Bombay	$177-185	107	....	New York	220	....	....
Brindisi	341	263	....	Port Darwin	130	80	....
Brisbane	200	127	....	Portland	160	....	....
Cape Town	265	175	$73	Port Said	244-321	185-234	....
Colombo	145-151	$70-113	28	Penang	64	48	34
Durban	250	165	70	Saigon	63-64	50-51	....
Gibraltar	341	244	....	San Francisco	175-225	112	51-102
Hongkong	25-33	13-22	7	Seattle	175-225	112	51-102
Honolulu	160	80	45	Singapore	67	44-51	....
Kobe	26-39	10-19	$7-8	Sydney	214	139	....
London	277-350	205-253	90-96	Tacoma	145	....	....
Malakka	59	44	18	Tangier	341	244	....
Malta	341	244	....	Vancouver	175-225	87-105	55-72
Manila	45	22	....	Victoria	175-225	87-105	55-72
Marseille	263-341	191-244	88	Vladivostok	45	27	12
Melbourne	219	141	....	Yokohama	32-44	13-22	8-9
Moji	20	....	....				

The following are the rates, in Mexican currency[1], of steamship fares from Shanghai to the various China ports visited more or less regularly by coastwise vessels:

Places.	One-way fare.	Round-trip fare.	Places.	One-way fare.	Round-trip fare.
	$ Mex.	*$ Mex.*		*$ Mex.*	*$ Mex.*
Amoy	40	60	Kiukiang	40	60
Antung	45	75	Nanking	40	60
Canton	55	85	Newchwang	55	85
Chefoo	35	55	Ningpo	10	15
Chemulpo (Korea)	40	60	Swatow	40	60
Chinwangtao	50	75	Takao	50	....
Chinkiang	40	60	Tientsin	55	95
Dairen	40	64	Tsingtau	30	48
Foochow	30	....	Weihaiwei	35	55
Hankow	40	60	Wuhu	40	60
Keelung	30	....			

RAILWAYS.

There are approximately 379 miles of railway in this district, as follows: The Shanghai-Nanking Railway from Shanghai to Nanking, a little more than 193 miles long; the Shanghai-Hangchow-Ningpo Railway from Shanghai to Zahkow, a little more than 159½ miles long; and the Ningpo Section (part of the Shanghai-Hangchow-Ningpo Railway system, though not connected to it) from Ningpo to the Tsao Ngo River, a little more than 48⅓ miles long. The Shanghai-Nanking Railway and the Shanghai-Hangchow-Ningpo Railway lines are connected, in the vicinity of Shanghai, with a junction line about 10 miles long, which mileage is included in the figures given for the Shanghai-Hangchow-Ningpo Railway. This junction line was completed in 1916.

The Shanghai-Nanking Railway has one branch line running from Shanghai to Woosung, a distance of a trifle less than 10⅕ miles; and the Shanghai-Hangchow-Ningpo Railway has one branch line called the Kiangshoo Branch Line, running from Hangchow to Konzenchiao, a distance of approximately 6 miles. The operation of all these lines is now practically in the hands of the British.

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[1] See footnote on p. 84.

The double tracking of the entire Shanghai-Nanking line is now contemplated, and provision has already been made for the double tracking of that portion of the line—nearly 53½ miles—between Shanghai and Soochow. There should be an opportunity for the use of American materials in the double tracking of the rest of this line.

The rolling stock of the Shanghai-Nanking Railway, which consists of 31 locomotives, ranging from 32 to 102 tons gross; 17 saloon and first-class cars; 9 first and second class composite cars; 1 first, second, and third class and brake composite car; 2 second-class lavatory cars; 49 third-class cars; 1 luggage and treasure van; 19 coolie or fourth-class cars; 3 brake and mail vans; 166 covered goods cars; 56 medium-sized wagons; 36 small-sized wagons; 20 cattle wagons; 2 horse boxes; 3 flat wagons; 1 kerosene tank wagon; 2 cylindrical oil tanks: 10 steel bogie brake vans; 4 market wagons; and 3 breakdown wagons. This rolling stock is practically all of British manufacture.

The rolling stock of the Shanghai-Hangchow-Ningpo Railway consists of 36 locomotives, ranging from 4½ to 87 tons gross; 9 first-class cars; 11 second-class cars; 60 third-class cars; 10 coolie or fourth-class cars; 8 composite first and second class cars; 2 kitchen cars; 9 brake vans; and 2 postal vans. This rolling stock is of British, German, Belgian, and American manufacture, in varying proportions, with the largest proportion of British manufacture.

The Shanghai-Nanking Railway was constructed by the British at a cost of about 18,716,690 taels.[1] This includes the Woosung branch. The Shanghai-Hangchow-Ningpo Railway was constructed from funds (amounting to $9,796,000 Mex.) raised by the provincial bureaus, which had objected to the introduction of foreign capital. It was opened to traffic in 1909. The cost of the Ningpo-Tsao-Ngo-River section, which was opened to traffic in 1915, is unknown.

There are four through trains daily each way between Shanghai and Zahkow on the Shanghai-Hangchow-Pukow Railway, one train each way between Kashing and Zahkow, and five trains daily each way between Zahkow and Konzenchiao. Two of the through trains are fast trains, one is a slow train, stopping at all stations en route, and the other is a coolie and goods train. There are five trains daily each way between Shanghai and Nanking on the Shanghai-Nanking Railway, four of which are fast trains and the other a slow train for third and fourth class passengers, stopping at nearly every station. The fast trains are made up of first, second, and third class cars. Night trains have sleeping cars that are quite comfortable.

One train daily each way on the Shanghai-Nanking Railway makes direct connections with the Tientsin-Pukow Railway at Nanking, and the Shanghai-Hangchow line makes the same connections through connections with the Shanghai-Nanking lines.

The through passenger fares from Shanghai to Nanking on the Shanghai-Nanking Railway are $8.40 Mex., $4.20 Mex., $2.10 Mex., and $1.60 Mex. (approximately $4\frac{2}{5}$, $2\frac{1}{5}$, $1\frac{1}{10}$, and $\frac{4}{5}$ cents per mile for first, second, third and fourth class passengers, respectively). Approximately the same rates per mile apply on the Shanghai-Hangchow-Ningpo Railway and the branch lines of each railway. The through fares from Shanghai to Zahkow on the Shanghai-Hangchow-Ningpo Railway are $5.40 Mex., $2.70 Mex., $1.75 Mex., and $0.95 Mex., for first, second, third, and fourth class passengers, respectively. The lowest single fare on these railways is $0.20 Mex., $0.10 Mex., and $0.05 Mex., for first, second, third, and fourth class passengers, respectively.

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[1] The word "taels" as used in this report from the Shanghai consular district refers to the Shanghai tael, the average value of which is normally about $0.65 United States currency. The expression "$Mex." has reference to Mexican dollars, the average value of which is about $0.43 United States currency. The values of the Shanghai tael and the Mexican dollar, in United States currency, on January 1, 1919, were about $1.08 and $0.78, respectively, illustrating the constant fluctuation characteristic of money exchange values in China. Where the word "gold" appears, or where the $ sign is used without qualification, United States currency is meant.

Baggage may be carried free as follows: First class, 267 pounds; second class, 200 pounds; third and fourth class, 133 pounds. Three cents Mex. per mile is charged for each 4 pounds in excess of the free allowance, subject to a minimum charge for 68 pounds.

The fast express trains from Shanghai to Nanking make the run in 6⅓ hours, averaging over 30½ miles an hour, including 13 stops. The fast express trains from Shanghai to Zahkow make the run in 4⅔ hours, averaging over 26 miles an hour, including 19 stops.

The charges for parcels on express trains of the Shanghai-Nanking Railway are as follows, the prices being given in Mexican currency:

Distance in miles.	Up to 26 pounds.	27-40 pounds.	41-53 pounds.	54-66 pounds.	67-133 pounds.
	$Mex.	*$Mex.*	*$Mex.*	*$Mex.*	*$Mex.*
Up to 50	0.25	0.25	0.25	0.25	0.40
51 to 100	.25	.30	.40	.50	.70
101 to 150	.30	.45	.60	.75	1.00
151 to 200	.40	.60	.80	1.00	1.00
201 to 300	.50	.80	1.00	1.00	1.50
301 to 400	.60	1.00	1.00	1.00	2.00

Packages exceeding 133 pounds in weight, or 8 cubic feet in measurement, will not be accepted as parcels.

Freights are divided into four general classes on the Shanghai-Nanking Railway, as follows:

"*X*" *class*, consisting of such goods as acids, mineral; ammunition; benzine; explosives; gases of all kinds in cylinders; gasoline; petroleum; and spirits, rectified.

First class, consisting of such goods as calcium carbide; clocks and watches; engravings; feathers; furs; glass; gold and silver lace and thread; jewelry and trinkets; laces; paintings; paper; straw hats; flowers; photographic and scientific instruments; pictures; plated articles; satins; silverware; and velvets.

Second class, consisting of such goods as art pottery; bamboo ware; bedsteads, wooden; brass ware and copperware, fancy; chinaware; crackers; cutlery; ebony; india-rubber goods; ivory; plants and trees (at railway risk); quicksilver; and silk cloth.

Third class, subdivided into 10 classes, "A" to "J," as follows:

"*A*," consisting of such articles as baskets and boxes, empty; blackwood; camphorwood; hats and caps, other than straw; chemicals and drugs, ordinary; cork; cotton, loose; ribbons; crockery (at owner's risk); eatables, sweet (at railway risk); flowers; furniture; hair; lamps; lard; marble; medicines; oilcloth; plants and trees (at owner's risk); rattans; salt, table; sandalwood; shaving instruments; silk waste; stoneware; tarpaulins; woodenware; and wool, loose.

"*B*," consisting of such articles as bedsteads, metal; biscuits, bread, and cakes; buttons; cigarette holders; cloth material (at railway risk); handkerchiefs; incense; leaf fans; leather boots; machinery in small lots; matting; merchandise such as thread, buttons, toys, umbrellas, vases, fans, mosquito nets, etc.; shirts; straw ware; tea; and toys.

"*C*," consisting of such articles as agricultural implements (not machinery); ale or beer (not bottled); brass; brooms and brushes; candied fruits; carriage fittings; cloth material (at owner's risk); coal tar; confectionery; cotton sweepings and waste; eatables, sweet, such as dates, sugars, candied fruits, etc. (at owner's risk); felt; hemp and hemp cloth (at owner's risk); rope; shells; towels; and vaseline.

"*D*," consisting of such articles as advertising frames; aerated waters; barrows; books and stationery; bottles, empty, in casks or hampers; brass and copper, scrap;

carpets; cement in barrels; charcoal; coir matting; colors; dyes; fish and poultry; fruits, fresh; hardware and ironware; honey; lead; leather goods; medicine (at owner's risk); milk, condensed; paints and varnishes; provisions; safes; scales; seeds; stoves; tiles; timber; tinfoil and tinware; wines and spirits; and zinc.

"*E*," consisting of such articles as bags, empty; calcium chloride; cigarettes, cigars, and tobacco; horns; hosiery; wool, pressed; and woolen yarn.

"*F*," consisting of such articles as bones and bristles (at owner's risk).

"*G*," consisting of such articles as alum; coke; cotton seeds; egg yolks; flour and other bagged goods; ginger, dried and fresh; hams and meat; hides and skins; kerosene (at owner's risk); lime; nuts (at owner's risk); paper; pepper; sesame seeds; snuffs; soda and ash; straw braid; sugar cane; and vegetables.

"*H*," not listed.

"*I*," consisting of such articles as candles; slate; and tallow.

"*J*," consisting of such articles as ashes or cinders; ballast; bamboo; bricks; buildin, and construction materials; piece goods; railway materials; salt, common; sawdustg common; seaweed; soap; and stone.

The rates for each 133⅓ pounds (1 picul) per mile, for each of the foregoing classifications, are as follows: "X" class, ⅓ to 20 cents, Mex.; first class, ⅛ to ½ cent, Mex.; second class, ⅛ to ⅓ cent, Mex.; third class, 1/13 to ¼ cent, Mex.; third class, "A," ¼ cent, Mex.; "B," ⅕ cent, Mex.; "C," ⅙ cent, Mex.; "D," 1/7 cent, Mex.; "E," ⅛ cent, Mex.; "F," 1/9 cent, Mex.; "G," 1/10 cent, Mex.; "H," 1/11 cent, Mex.; "I," 1/12 cent, Mex.; "J," 1/13 cent, Mex.

The minimum charge for any consignment of freight is 50 cents, Mex.

Prices per ton and per carload lot, for any distance, will be quoted on application to the traffic manager; also prices for shipments of live stock.

Freights on the Shanghai-Hangchow-Ningpo Railway are divided into six general classes, as follows:

"*X*" *class*, consisting of explosives, etc., like the same class on the Shanghai-Nanking Railway.

First class, consisting of such articles as alabaster figures and ornaments; amber; animals and birds, stuffed; art pottery; artificial flowers; bicycles; bird cages; bronze figures; chinaware; clocks and watches; coffins; crackers, native; crape; embroideries; engravings; fans, superior quality; feathers; wax figures and flowers; furs; glass, all kinds; gold and silver lace or thread; musical, technical, and scientific instruments; hats, straw; jade and jadestones; jewelry and trinkets; lace; lacquer ware; maps; medicines, native, first quality; motor cars; oil paintings; perfumes; silk goods; porcelains; ribbons; samples, traveler's; satin or velvet; straw ware, fine; tables, bagatelle and billiard; tortoise shell; vases, china; and writings.

Second class, consisting of such articles as aluminum; animals, live, in strong portable cases; baggage, personal; fancy woods; brass ware, fancy; caps and hats, imported; carpets, imported; chairs, basket or wicker; cocoa and coffee; copperware, fancy; cotton piece goods; deer sinews and horns; electric appliances and equipment; egg yolk in jars or bottles; engines; fancy goods, toys, etc.; fish and game; flowers; fruits, fresh; furniture; garments, woolen; goods, sporting; mats; hosiery; india-rubber goods; isinglass; lamp chimneys; flowers; machinery, in small lots; marble; matches, safety; medical wines and medicines; oilcloth; paper flowers; quicksilver; ribbons; rubber goods; safes; scales; sewing machines; shaving instruments; seals; snuff; sponges; straw, loose, and straw braid; toilet preparations; wines and spirits; and wool, loose.

Third class, consisting of such articles as advertising frames; aerated waters; ale or beer; arrowroot; bamboo ware, fine; barrows; bedsteads, metal; books and stationery; boots and shoes, imported; bottles, empty, packed; boxes and cases, empty; brass; buttons, imported; cane, sugar; candles; carriage fittings: chinaware, coarse; cigarettes, cigars, and tobacco; cigarette holders; coal tar; colors; confectionery; cork; cotton sweepings, waste, and yarn; crockery, common; dyes, colors, and paints; earthenware; eggs in boxes; felt; fish, salt and dried; fruits, dried; seeds; ginger; hardware; leather goods; hemp and hemp cloth; hides and skins; horns and articles made thereof; household linen and wearing apparel; ice; incense; iron, manufactured; kitchen utensils and stoves; lamps; lard; leather ware; milk, condensed; mulberry leaves, fresh; muslin; native cloth; nuts; oils; vegetables; ores; paints and varnishes; paper, common; petrolatum; plants and trees; provisions; railroad construction and equipment materials; rope; salt, table; seaweed; seeds; straw ware; tallow; tiles: timber; vaseline; zinc nails and zinc ware.

Fourth class, consisting of such articles as abacus; agricultural implements (not machinery); alum; ashes or cinders; bags, empty; baskets, common; barley, beans, and grains of all kinds; bean cake; bones; boots and shoes, native; brass, scrap; bread, cakes, and biscuits; bricks, fire; bristles (in boxes or hampers); cement; chalk; charcoal; coir mats and matting; cork; corrugated iron; firewood; flour; grass, turf; gypsum; grains, edible; iron and steel, manufactured; oil, kerosene; leather, scrap; lime; manure; meat, salted; mulberry leaves, dried; ores, common; pickles; soap, common; soda; stone, wrought; tea dust; tiles, ordinary; and zinc sheets.

Fifth class, consisting of such articles as ballast; bamboos; bricks, common; brooms and brushes, native; coal; mud and earth; paper ash; sand, in casks; and stone, rough.

The rates for each 133⅓ pounds (1 picul) per mile, for each of the foregoing classifications, are as follows: "X" class, 5 cents Mex.; first class, ½ cent Mex.; second class, ⅓ cent Mex.; third class, ¼ cent Mex.; fourth class, ⅙ cent Mex.; fifth class, 1/11 cent Mex. The minimum charge for a freight consignment is 50 cents Mex.

The following are the rates per ton, at railway risk, exclusive of terminal and other charges, the loading and unloading to be performed by the shipper and consignee:

Distance, in miles.	First class.	Second class.	Third class.	Fourth class.	Fifth class.
	$ Mex.	*$ Mex.*	*$ Mex.*	*$ Mex.*	*$ Mex.*
Under 15	1.65	1.10	0.75	0.60	0.40
16 to 23	2.25	1.45	1.00	.70	.45
24 to 32	2.85	1.75	1.20	.80	.50
33 to 42	3.45	2.20	1.45	.90	.60
43 to 54	4.05	2.65	1.65	1.05	.65
55 to 68	4.70	3.10	1.85	1.20	.70
69 to 84	5.30	3.50	2.20	1.40	.75
85 to 103	5.90	3.95	2.50	1.55	.80
104 to 125	6.60	4.40	2.75	1.75	.85
126 to 150	7.15	4.85	3.10	1.95	1.00

The rates per ton for "X"-class goods are not quoted.

Except as stated above, concerning the double-tracking of the Shanghai-Nanking Railway, the Shanghai consulate general knows of no railway construction under way or contemplated in this district.

TRAMWAYS.

The Shanghai Tramways, operating in the International Settlement of Shanghai, are owned by the Shanghai Electric Construction Co. (Ltd.), a British corporation having its head offices in London. The Shanghai general manager of this line is D. McColl. The capital is £320,000 (approximately $1,552,000 gold). This company now operates 9.385 miles of double track and 7.055 miles of single track, with 90 motored cars and 70 trailers. The same company also operates 1.007 miles of trackless motor service, with 7 railless motored cars. The latter service is operated on streets that are considered too narrow for the laying of tracks. The motive power for this line is furnished by the Municipal Electrical Works.

The first-class fare is 3 cents Mex. for a "section," the sections averaging about nine-tenths of a mile in length. The highest fare for a single trip, from one end of a route to another, is 12 cents Mex. The third-class fare (two classes of fare are provided) works out to about one-half the first-class fare. The third class is patronized almost exclusively by the Chinese. There are a very few shorter sections on which the first-class fare is only 2 cents Mex. and the third-class fare one-half that amount. A first-class monthly season ticket is sold for $6 Mex. and entitles the holder to make use of the cars at any time during the month in which the ticket is current. These tickets are extensively used by regular patrons of the lines. In 1917 the Shanghai Tramways carried 73,500,000 passengers.

The French Settlement in Shanghai has its own tramway system, owned and operated by the Compagnie Française de Tramways et d'Eclairage Electriques de Shanghai, having its head office in Paris. The Shanghai general manager is M. Coursier. The capital is 8,000,000 francs (approximately $1,440,000 gold). This company operates also the electrical undertaking and the waterworks system in the French Settlement. There are about 3.07 miles of double track and about 6.88 miles of single track. There are 38 motored cars and 12 trailers.

The fares on this line correspond to those on the lines in the International Settlement, except that it costs 15 cents Mex. for the longest single-route trip. A monthly season ticket good for use on both lines can be purchased for $10 Mex. These tickets are used by persons whose business takes them to all parts of the city.

There are at the present time no prospective extensions on either of the rail systems; but efforts are now being made to obtain authority from the municipal council to extend the railless system.

There is a very short tramway operated on the Bund of the Chinese city by a native concern, but statistics concerning it are not available.

ROADS.

As in nearly all other districts in China, there are no roads worthy of the name in the Shanghai consular district outside the towns and villages, and in the latter such roads as exist are usually nothing but beaten dust routes running through the principal streets—in fact, mere alleys or footpaths. Therefore, there can be said to be no particular trade routes traversed by ordinary roads. There are approximately 126 miles of road in the International and French Settlements of Shanghai, of which approximately 77½ miles are macadam and 21 miles paved. The unimproved roads are generally new streets on the borders of the settlements. No statistics are known to be available concerning the length of the roads in the native city, but it is probably safe to say that there are not as many roads in the native city as in the International and French Settlements. The roads in the native city are not as wide, nor as well kept, as the others.

The upkeep of the roads in the International and French Settlements is in charge of the municipal council of each settlement. In the International Settlement several streets are marked out for future improvement, and such improvements will be carried out as fast as funds therefor become available.

There are very few draft animals in use throughout the district. Occasionally oxen, carabou, and horses are seen in the rural districts. The principal methods of transportation from one town to another are by the rail and water routes. However, a considerable number of horses and carriages are still used in Shanghai for the transportation of pleasure seekers, and there are many privately owned horses and carriages there. The one-horse carriage can be hired for $1 Mex. an hour. There are a great many automobiles now in use in Shanghai, both privately owned and for hire, the charges for the latter being from $3 Mex. an hour, for the cars carrying three passengers besides the driver, to $5 Mex. an hour for the cars carrying six passengers besides the driver. But the principal means of passenger transportation in the city and suburbs are the street cars (which have already been fully described) and the jinrikishas (small two-wheeled vehicles drawn by coolies). The official rates for the latter are 10 cents Mex. per mile, or 50 cents Mex. an hour for the first hour and 40 cents Mex. an hour for each succeeding hour. Jinrikishas can also be hired by the day or month for $0.50 to $1 Mex. and $18 to $25 Mex., respectively, according to the nature of the work. The Chinese pay less than half these rates, as a rule.

Except in a very small proportion of cases, in which speed is more important than anything else and in which automobiles are used, the hauling of freight in the city is done by coolies, who have large two-wheeled carts, or trucks, on which they haul loads weighing from 1,000 to 4,000 pounds, according to bulk. The cost of these ranges from $0.50 to $0.80 Mex. an hour, or from $3 to $4 Mex. a day, according to nature and weight of loads. It should be stated, in connection with these prices for coolie hauling, that there are no extra charges for loading and unloading, as this is all done by the coolies who haul the loads.

In addition to the two-wheeled freight cars, a great many of the Chinese wheelbarrows are still used for transporting freight and passengers. These carry from four to six persons and loads from 300 to 750 pounds in weight, and they can be hired for from $0.20 Mex. an hour to $1.25 Mex. a day.

POSTAL FACILITIES.

Shanghai is very well served in the way of postal facilities with all parts of the world. In addition to the main Chinese post office, which is situated at the corner of Peking and Szechwan roads, there are several branches of the Chinese post office situated at convenient places throughout the city, and the American, British, French, German, Japanese, and Russian authorities have postal agencies in Shanghai. These latter are patronized very largely, by foreigners and natives alike, for sending mail to the various countries indicated and to their possessions. The rates charged by these various foreign agencies between China and their own dependencies (except in the case of Great Britain, which now charges the Postal Union rates) are practically their own domestic rates to the same parts. The Chinese local and domestic rates are about one-third less than the local and domestic rates in other countries for first-class mail matter. The Chinese post office handles most of the domestic mail and operates a free delivery system within the city. By arrangement with the British postal authorities, on account of the latter charging Postal Union rates, the Chinese postal authorities also make free delivery of British mail within the city. Free delivery of mail within the city is made by the other foreign postal agencies in Shanghai. There are splendid railway and water facilities for the distribution of mail throughout the Shanghai consular district.

The American post office is situated at 14 to 16 Whangpoo Road, next to the American consulate general; the British post office at the corner of Peking and Museum Roads near the main Chinese post office; the French post office at 61 Rue Montauban, in the French Settlement; the German post office (which has ceased to function since the declaration of war between China and Germany) on the corner of Foochow and Szechwan Roads; the Japanese post office at 1A Seward Road; and the Russian post office at the corner of North Soochow and Woosung Roads.

In addition to parcel-post and money-order arrangements, at international rates, between the Chinese and United States postal authorities to all parts of China and the United States, there are parcel-post and money-order facilities between the United States and Shanghai, through the American postal agency, at United States domestic rates. In the use of this service the United States eighth zone rates apply for parcels to Shanghai only, and goods may be insured and sent "collect on delivery."

Mail steamers ordinarily go and come between China and the United States direct from three to five times a month, and the time required for the receipt of first-class mail from New York is usually from 26 to 35 days, although it has been known to come in 20 days and sometimes takes 40 or 45 days.

TELEGRAPHS.

Shanghai is in very close telegraphic and cable communication with all parts of the world. The following telegraph and cable offices operate in Shanghai:

Chinese Telegraph Administration, No. 8 The Bund.
Eastern Extension, Australasia & China Telegraph Co. (Ltd.) (British), No 7 The Bund.
Great Northern Telegraph Co. (Ltd.) (Danish), No. 7 The Bund.
Commercial Pacific Cable Co. (American), No. 7 The Bund.

Wheatstone apparatus is in general use in the telegraph offices throughout this district.

The following rates are in force for telegrams in foreign languages: To all places in the same Province, 9 cents Mex. per word; to all other places in China, 18 cents Mex. per word. Press telegrams throughout China are sent at the rate of 6 cents Mex. per word. Telegrams in the Chinese language to all places in the same Province cost 6 cents Mex. per character; to all other places in China, 12 cents Mex. per character. Press messages throughout China in the Chinese language cost 3 cents Mex. per character.

The foreign telegraph and cable offices maintain practically the same tariff of rates, and press messages are accepted at half the usual rates. Deferred cablegrams to most countries in Europe are transmitted at one-half the usual rates. The following extract from the printed tariff of the Commercial Pacific Cable Co., dated April 1, 1917, will give a general idea of the rates per word prevailing at Shanghai for cablegrams to various parts of the world:

	$Mex.
Alaska, via Ashcroft	3.05
Yukon, Dawson City	2.40
Yukon, via Seattle	2.25
San Francisco, Alameda, Berkeley, Oakland, etc	1.75
(For other points in the United States, add the United States telegraph rate to the rate for San Francisco.)	
British Columbia:	
Eighth zone	2.55
Seventh zone	2.40
Sixth zone	2.20
Fifth to First zones, a sliding-scale reduction of $0.00325 per word for each zone.	
Prince Edward Island	2.10
Cape Breton	2.05
Saskatchewan	1.95
Mexico	2–2.30
Costa Rica	2.70
Guatemala:	
San Jose	2.60
Other places	2.70
British Honduras	2.70
Nicaragua:	
San Juan del Sur	2.60
All other places	2.70
Salvador:	
Libertad	2.60
All other places	2.70
South America, from $4.25 Mex. for Dutch Guiana to $2.80 Mex. for Panama.	
Great Britain, France, Belgium, and the Netherlands	2.40
Germany (via Sayville wireless)	2.75
Austria-Hungary (via Sayville wireless), Turkey, and nonbelligerent countries	2.90
West Indies, from $4.10 Mex. to as low as $2.10 Mex. for Habana, Cuba.	

So far as can be ascertained, no extensions of telegraph or cable service are contemplated at the present time.

TELEPHONES.

In Shanghai there are two separate systems of telephones in operation—one in the foreign settlements, owned by a British corporation, the stockholders of which are chiefly Shanghai residents of all nationalities; and the other in the Chinese city, under control of the Chinese Board of Communications, a Government bureau.

The Shanghai Mutual Telephone Co. (Ltd.), which operates in the International and French Concessions, has two zones of service; the first comprising all the territory within a radius of 2½ miles from the telephone exchange, and the second including all territory outside of the 2½-mile radius but within a 4-mile radius. The annual subscription rates, payable quarterly in advance, are: In the first zone, for business and private wall telephones, 65 and 45 taels, respectively; in the second zone, 100 and 60 taels for business and private wall telephones, respectively. If desk instruments are used, an additional charge of 10 taels per annum is made in the first zone and 20 taels per annum in the second zone. Subscribers who are stockholders holding at least four shares are entitled to a reduction of 20 per cent from the prices quoted. There are at present more than 5,600 subscribers to this telephone system. The system is Swedish, all the instruments having been imported from Stockholm.

In the Chinese city of Shanghai the Government offers service to both business and private houses at a flat rate of $4 Mex. per month.

There are also telephone systems in the towns of Changchow, Hangchow, Kashing, Kunshan, Ningpo, Shaoshin, Soochow, and Wenchow, in the Shanghai consular district.

No extension of the systems (aside from the regular increases in the number of subscribers) is contemplated at the present time.

NEWSPAPERS.

The leading foreign newspapers circulating in Shanghai are the China Press (American), the North China Daily News (British), the Shanghai Times, the Shanghai Mercury (British), and the Shanghai Gazette (Chinese-American). The leading native newspapers are the Shun Pao, the Hsin Wen Pao, and the Eastern Times. All these newspapers are daily publications.

The circulations of the Chinese newspapers average from 18,000 to 30,000 daily, and the Shun Pao is thought to be the most widely read paper in the Shanghai district. Its advertising rates are higher than those of any of the other Chinese publications. An advertisement on the front page of this paper, which is considered a very desirable place, ⅜ inch by 11 inches in size, costs $1.41 Mex. per day, and every additional line costs $0.53 Mex. per day for the first day; for the second and following days the charge is $0.66 Mex. for the first-named space and $0.44 Mex. for each additional line. The rates are lower on the other pages.

The Hsin Wen Pao charges (by contract only) $9.89 Mex. per day for a whole page, $5.14 Mex. for a half page, and $2.47 Mex. for a quarter page.

The Eastern Times charges $22.44 Mex. per day for a whole page advertisement and proportionately for one-half and one-quarter pages. Rates on the front page and the middle of any page are double the rates stated. A reduction of 10 per cent is allowed for advertisements running for three months, 20 per cent for six months, and 30 per cent for one year.

It is estimated that approximately 25 per cent of the native population are able to read.

PUBLIC WORKS AND SANITATION.

So far as can be ascertained, no irrigation or reclamation projects of any kind are now being carried out or contemplated in this district.

WHANGPOO RIVER CONSERVANCY.

The conservancy of the Whangpoo River, the main shipping artery from the ocean to Shanghai, is constantly being carried on. This is made necessary by the unceasing collection of silt, which is brought down from the upper reaches of the river, in the navigable channel. This work is in the hands of a board consisting of the commissioner for foreign affairs at Shanghai, the commissioner of customs, the harbor master, and six of the prominent business men of Shanghai, under a scheme evolved by the Shanghai Chamber of Commerce. Funds for this work are obtained by the imposition of taxes on all customs duties levied as well as on the value of goods exported or imported duty-free. The plan was put into operation in May, 1912, the income from this plan averaging about 500,000 taels per annum, and the board now has its own dredging plant in operation. The result of this work so far carried on is that the Astra Channel, which at the time of commencement of operations was only 18 feet deep, is now more than 24 feet deep and vessels of that draft can safely enter and navigate the river up to a place opposite the customs wharf at Shanghai.

CONDITION OF STREETS—LACK OF SEWER SYSTEM—FIRE PROTECTION.

The general condition of the principal streets in the foreign settlements of Shanghai is very good, and all the streets are well lighted by gas or electricity; 624 gas and 1,583 electric lamps were in use for street lighting in the International Settlement on December 31, 1916. The water supply is ample for regular consumption and fire protection, but the water is not considered safe for drinking purposes until it has been boiled.

There is no regular sewer system. In the houses and hotels equipped with modern sanitary appliances the sewage is carried into cesspools, but as a general rule the waste and garbage is gathered up by the sanitary employees of the municipalities and disposed of for filling and fertilizing purposes. Plans for sewage disposal are now under consideration. It has been recommended that a sewage-disposal plant be installed instead of discharging the waste into the river or using septic tanks.

The fire department is a volunteer one, of which the only paid officers are the chief officer, the engineer, and one clerical assistant. There is ample semimodern and modern fire equipment, and fire losses are not above the average in cities of similar size. Plenty of fire hydrants are to be found all over the Settlements.

For the care and upkeep of the streets, the international municipal council operates 61 water carts, 1 steam water wagon, 55 gulley and dust carts, 13 machine scrapers, 36 machine brushes, 76 work carts, 16 garbage carts, and 11 steam rollers.

While the municipal authorities in the native districts make a brave attempt to emulate the municipal administration of the foreign settlements, they are not able to keep their streets in as good condition as those in the foreign settlements, but the streets are generally fairly well lighted and are kept reasonably clean.

ELECTRIC AND GAS PLANTS.

The Municipal Electric Works, installed, operated, and controlled by the municipal council of the International Settlement, consists of two plants, one situated at Riverside and the other on Fearon Road. These plants work in conjunction with each other and have capacities of 14,000 kilowatts and 5,600 kilowatts, respectively. The charge for lighting service is 0.115 tael per unit and for heating service is 0.03 tael per unit. Charges for industrial purposes are generally lower than for heating purposes, and vary according to the quantity used by the manufacturing establishments.

The machinery and equipment used are approximately 82½ per cent British and the rest American. The engineer in chief and manager is a British subject.

The prospects for the future extension of these plants are very promising. Continuous extensions must be made as soon as conditions permit the purchase of electrical generating machinery and equipment at reasonable prices. During the year 1917 no heating connections have been made owing to the fact of there being insufficient current to fill the need. In spite of the war, new cotton and other manufacturing industries requiring electric power are being established and it is expected that there will be a continually increasing demand for electric power.

The electric plant in the French Settlement is owned by the French Tramway Co. Statistics concerning its capacity, etc., are not available to the American consulate general. The rates charged by this concern are higher than those charged by the authorities in the International Settlement. It is probable that all the machinery and equipment is of European (mostly French) manufacture. The same company runs the water-supply system for the French Settlement, which was formerly owned by the French municipal council. The correct name of the company is the Compagnie Française de Tramways et d'Éclairage Électriques de Shanghai.

The Shanghai Gas Co. (Ltd.) was incorporated in 1863. The works and offices of this company are situated at 5 Thibet Road. It is a British concern and most of its plant and equipment were imported from Great Britain. Its charge for gas for lighting and heating is $1.80 Mex. per thousand cubic feet. It is doubtful whether any extensions will be undertaken by this concern, because the demand for gas for lighting purposes is gradually declining in favor of electricity. The greatest demand for gas at the present time is for water-heating purposes in buildings equipped with hot and cold water washing and bathing facilities. It is understood that the present plant is considered amply sufficient to supply the demands that are likely to be made upon it for some time to come.

WATERWORKS.

The Shanghai Waterworks Co. (Ltd.), a British concern, was incorporated in 1880 with a capital of £327,000 ($1,592,490 United States currency). The capital is now £1,000,000 ($4,866,500). The management of this concern is entirely British, and it is probable that most of its machinery and equipment is British. The charge for water supply is usually 4 per cent of the amount paid for rent for residences, and special rates are charged for offices and manufacturing establishments. The rates charged are in accordance with an agreement with the municipal council of the International Settlement. The total quantity of water pumped from the Whangpoo River in 1917 was 5,208,000,000 gallons.

As already stated, the water system in the French Settlement is under the control of the French Electric Co. The native city and Chapei districts own their own systems, concerning which no statistics are available.

TREATY PORTS AND FOREIGN CONCESSIONS.

The treaty ports in the Shanghai consular district, besides Shanghai, are Hangchow, a city of approximately 595,000 inhabitants, on Hangchow Bay in Chekiang Province; Ningpo, a city of about 455,000 inhabitants, near the mouth of the Yankiang River in Chekiang Province; Soochow, a city of about 500,000 inhabitants, on the Grand Canal in Kiangsu Province; and Wenchow, a city of about 100,000 inhabitants, on the Wukiang River, in Chekiang Province. By treaties with China, foreigners are allowed to reside and carry on trade in all treaty ports. The methods of control and administration at these treaty ports are the same as at other treaty ports in China. Shanghai is the only treaty port in the district having American consular representation, and here, in normal times, are located the consular representatives of Austria-Hungary, Belgium, Brazil, Cuba, Denmark, France, Germany, Great Britain, the Netherlands, Italy, Japan, Norway, Portugal, Russia, Spain, Sweden, and the United States. At present, the consular representatives of Austria-Hungary and Germany have been withdrawn on account of the war between China and those two countries.

All foreign countries trading in this district enjoy exactly the same privileges as to trade. American trade has been expanding rapidly during the past three years and, in 1916, the United States led every other country in the amount of foreign business done.

FINANCE AND BANKING.

CURRENCY IN CIRCULATION.

The actual currency in circulation in Shanghai is the Mexican silver dollar. The Shanghai tael is, however, the unit of currency in transactions for both native and foreign merchants. The Shanghai tael is especially mentioned for transactions in this district because it is generally known among foreign business men in China that the value of the taels of the different Provinces (and in many instances even in different towns in the same Province) varies considerably.

The tael is not a coin but a weight, representing a Chinese ounce (liang) of silver of certain purity. Taels are circulated by the foreign bankers in notes, and by native banks in checks (known as "native orders" in local parlance). There are also the sycees—shoes of silver—which weigh approximately 1, 2, 5, 10, and 50 taels. These sycees are rarely seen in the foreign settlements but are used in the native city. Native banks use the silver bar (valued at approximately 1,000 taels) in their transactions with foreign banks.

For the payment of Chinese Maritime Customs duties, the Customs or Haikwan tael is used, which is simply an arbitrary standard of currency and not used in commercial circles. It is supposed to be a pure silver tael, and the equivalent is 1.114 Shanghai taels. Duties are actually paid in Mexican dollars or Shanghai taels. The Chinese dollar is also accepted, but at a slightly lower rate than the Mexican dollar.

There is also the Kuping tael. This is the Treasury tael in which all Government taxes and dues, other than customs duties, are paid. Theoretically it is uniform throughout the Republic. One hundred Haikwan or Customs taels are equal to approximately 111.4 Shanghai taels, 105.215 Tientsin taels, and 101.64 Kuping taels.

Various kinds of silver dollars are in circulation in Shanghai, but the one most commonly seen is the Mexican dollar. In Ningpo and Hangchow the old Spanish or Carolus dollar is most in favor; this, though lighter than the Mexican dollar, may be in such demand as to be worth from 10 to 40 cents more than the Mexican dollar. Hongkong and Straits dollars are also met with, but their values fluctuate constantly. Chinese dollars have been issued by various provincial mints, and have been the cause of the lowering of the value of the Mexican dollar as compared with taels. In former years the Mexican dollar was worth, on an average, 73½ tael cents, but within the last three years it has stood at 71 to 72 tael cents.

The 10 and 20 cent pieces constitute the small silver coinage and in theory represent one-tenth and one-fifth of a dollar, respectively. But, in making exchange at the money exchange shops, from $1.10 to $1.16 is given in small change (10 and 20 cent pieces and coppers) for one silver dollar.

The copper coin, theoretically worth one one-hundredth part of a dollar, is the next smaller unit in general circulation; this, in turn, is divided into 10 parts represented by small metal coins called cash. The copper coin, like other Chinese currency, is subject to fluctuation in value. A silver dollar will usually buy from 1,300 to 1,400 cash, or 130 to 140 copper coins. These copper cents, since they were put into circulation in place of the metal cash, have been the cause of disputes between native employers and employees owing to their fluctuating value. The cash that was very extensively used by the native Chinese some 20 years ago in making purchases is now rarely seen. The present cash has deteriorated in size considerably, being about one-third the weight of the original cash, which was in use before the advent of the copper coin.

CURRENCY REFORMS.

Attempts have been made from time to time to provide a uniform currency system, and by the Mackay (British) treaty of 1902, signed at Shanghai, the Chinese Government agreed to take the necessary steps to provide a national coinage that should be legal tender in the payment of duties, taxes, and other obligations throughout the country by British as well as Chinese subjects. Regulations were drawn up as late as January, 1914, and these regulations received the approval of the President and Cabinet.

In a statement issued by the Ministry of Finance in October, 1915, to the China Press, an American newspaper, the steps taken toward currency reform were outlined as follows:

> New silver coins of 1-dollar, ½-dollar, 20-cent, and 10-cent denominations are to be coined, and 5-cent coins of nickel. The old dollars and subsidiary coins will gradually be recalled and recoined into the new currency. The values of the old coins will be at the rate of 100 cents, 20 5-cent pieces, 10 10-cent pieces, 5 20-cent pieces, and 2 half-dollars to the dollar in practice as well as in theory, and heavy penalties are provided for refusal to accept the new coins at their face value.

Although it is understood that this new coinage has been placed in circulation in some parts of China, it has not yet become effective in the Shanghai district.

DIFFICULTIES IN FOREIGN COMMERCIAL TRANSACTIONS.

The commercial transactions are subject to fluctuations in the value of silver in relation to gold, which constitute a considerable handicap to the importer because he is unable accurately to estimate what will be the value in local currency of his orders from foreign countries for future deliveries, as prices in foreign countries are nearly always quoted in gold. At the time of placing orders for future deliveries it may be that gold can be purchased at the rate of 1¼ to 1, but when goods are delivered and payment has to be made therefor, it may be that the rate will have increased to 1⅜ or 1½ to one or even more. From this it will readily be seen that the importers are compelled, as a rule, to buy in advance certain amounts of gold currency at a rate arranged with the banks, to protect themselves against the fluctuations in the value of silver. This is done every day through the medium of exchange brokers.

FOREIGN AND CHINESE BANKS.

The foreign banks charge interest for loans on approved securities at the rate of 6 to 7 per cent per annum. Fixed deposits are accepted at interest rates averaging 4 to 5 per cent per annum, and current accounts usually bear interest at the rate of 2 per cent per annum on daily balances over certain agreed amounts. The interest rates on savings accounts run from 3½ to 4 per cent per annum, interest payable semiannually.

The foreign banks in Shanghai buy and receive for collection bills of exchange, and issue drafts, telegraphic transfers, and letters of credit payable in the principal cities throughout the world. They receive money on deposit and loan money on approved securities. In general the same kind of banking facilities are available to residents and traders in Shanghai as to residents and traders in the United States.

The Chinese banks do a loan business principally, and the interest charged ranges (theoretically) from 10 to 20 per cent per annum, but, as a matter of fact, the interest rate varies daily from $0.03 to $0.12 per $100 per day, depending on the state of the money market. The purely Chinese banks do not, as a rule, ask for security from their customers in making loans to them, but those with whom they deal must be merchants of proved commercial standing or must be persons who are very well known to the banks. They make it a strict rule, however, that all accounts must be settled once a year, and any borrower failing to make settlement before the beginning of each year (Chinese New Year) "loses face"; that is to say, he loses his reputation as a merchant or person of standing and will experience much difficulty in obtaining future loans.

Mortgages on property are sometimes accepted, and interest rates are about 10 per cent per annum. Fixed deposits are accepted from the public at an interest rate ranging from 5 to 6 per cent per annum, and current deposits bear interest at an average of 2$\frac{4}{10}$ per cent per annum.

Drafts are issued by such banks as have branches in China, but no foreign business is handled. Checks or orders issued by Chinese banks of well-known reputation are accepted by the foreign banks when paid in by their customers.

Besides the banks operated in the old way, there have been established several Chinese banks run with semiforeign methods, and a few of them have a foreign and a Chinese manager, but, with one or two exceptions, they do not handle transactions with foreign countries. These banks, as well as the foreign banks, issue paper notes that are used in place of coin for local transactions. Such paper notes, if drawn on banks of recognized standing, are also accepted in other cities of the Republic, but usually at discounts ranging from 1 to 15 per cent.

Shanghai has five American banking institutions—the International Banking Corporation, No. 1-a Kiukiang Road; the American-Oriental Banking Corporation (with which is associated the Raven Trust Co.), No. 15 Nanking Road; the Philippine National Bank, McBain Building, No. 1 The Bund; the Asia Banking Corporation, Kiangse Road; and the Park-Union Foreign Banking Corporation. The Asia Banking Corporation opened for business on February 7, 1919. Complete banking facilities are afforded the public at the office of the American Express Co.

The following are the foreign banks in Shanghai other than American:

Bank of Taiwan (Japanese), No. 16 The Bund.
Banque-Belge pour l'Etranger (Belgian), No. 20 The Bund.
Banque de l'Indo-Chine (French), No. 29 The Bund.
Banque Industrielle de Chine (Franco-Chinese), No. 1 Quai de France, French Bund.
Chartered Bank of India, Australia & China (British), No. 18 The Bund.
Hongkong & Shanghai Banking Corporation (British), No. 12 The Bund.
Mercantile Bank of India (British), No. 7 Nanking Road.
Nederlands Trading Society (Dutch), No. 21 The Bund.
Russo-Asiatic Bank (Russian), No. 15 The Bund.
Sumitomo Bank (Japanese), No. 1 Kiukiang Road.
Yokohama Specie Bank (Japanese), No. 31 The Bund.

Among the principal Chinese banks operating under semiforeign methods are:

Bank of China (semigovernmental), No. 3 Hankow Road.
Bank of Communications (governmental), No. 35 Szechwan Road.
Commercial Bank of China, No. 6 The Bund.
Ningpo Commercial Bank, No. 8 Ningpo Road.
Kiangsu Bank, No. 51 Kiangse Road.
Chakiang Industrial Bank, 39 Peking Road.
Shanghai Commercial & Savings Bank, 9 Ningpo Road.

In October, 1918, the Shanghai Bankers' Association (Chinese) was formed. The association owns its own home, on Hongkong Road.

MANUFACTURING AND OTHER INDUSTRIES.

Shanghai industrial activities include cotton mills (which form today the most important industry of Shanghai), silk filatures, flour mills, oil mills, paper mills, shipbuilding works and docks, tobacco and cigarette factories, soap and candle works, match factories, egg factories and refrigeration plants, a brewery, a canning factory, a tannery, a piano factory, and several printing works.

The local mills generally procure and market their products in China. Cotton-mill and flour-mill products especially have made great strides during the last few years. The products of the silk filatures and oil mills find a continually expanding market in America, Japan, and Europe. Most of the industrial products of Shanghai find a ready market in China, and cotton goods, in particular, are already competing with the imported article and, with the close of the war, there are likely to be further developments in this industry.

In almost every industry the natives are closely following foreign methods and Chinese are replacing foreigners. The flour mills are nearly all operated by Chinese, except one that is operated and managed by Japanese. The Chinese also own the largest printing works in Shanghai. The following are the principal foreign owned and controlled industries in Shanghai:

Union Brauerei (brewery), 40 Gordon Road (German).
A. Butler Cement Tile Works (Ltd.), Soochow Creek, Ferry Road (British).
Kiangsu Chemical Works, Soochow Creek, near Ferry Road (British).
British Cigarette Co. (Ltd.), Pootung, town office 22 Museum Road (associated with the British-American Tobacco Co.).
China Cork Factory, 53 Szechwan Road (Belgian).
Oriental Cork Factory, 128 Szechwan Road (Italian).
Ewo Cotton Spinning & Weaving Co. (Ltd.), 46 Yangtzepoo Road (British), with a capital of 1,500,000 taels and with 73,952 spindles and 679 looms.
International Cotton Manufacturing Co. (Ltd.), Pootung (British), town office 4 Kiukiang Road, with a capital of 778,800 taels and with 53,200 spindles and 500 looms.
Oriental Cotton Manufacturing Co. (Ltd.), 36 Yangtzepoo Road (British), with a capital of 1,000,000 taels and with 50,768 spindles.
Kung Yik Cotton Spinning & Weaving Co. (Ltd.), Robinson Road (British), with a capital of 750,000 taels and with 25,376 spindles and 500 looms.
Laou Kung Mow Spinning & Weaving Co. (Ltd.), 40 Yangtzepoo Road (British), with a capital of 800,000 taels and with 40,096 spindles.
Nagai Wata Kaisha, Ichang Road, two cotton mills (Japanese), with a capital of $2,500,000 and with 120,000 spindles.
Shanghai Cotton Manufacturing Co. (Ltd.), Yangtzepoo Road, two mills (British but under Japanese management), with 46,000 spindles and 886 looms.
Yangtzepoo Cotton Mill Co., Wetmore Road (British), with a capital of 1,500,000 taels and with 55,632 spindles and 416 looms.
New Shipbuilding & Engineering Works (Ltd.), 37 Yangtzepoo Road (British), with an authorized capital stock of 750,000 taels.
Shanghai Dock & Engineering Co. (Ltd.), 26 Broadway (British), with a paid-up capital stock of 5,520,000 taels.
Egg factories (all American):
  Amos Bird Co., 91 Yangtzepoo Road.
  American Egg Drying Co. (Inc.), 820 N. Chekiang Road.
  Superior Egg Products Corporation, 1512 W. Saw Gin Creek Road.
China Flour Mill Co. (Mitsui Bussan Kaisha, owners), with a capacity of 2,000 bags of flour and 18 tons of bran daily.
Shanghai Ice & Cold Storage Co., 69 Yangtzepoo Road (British).
Lih Teh Oil Mill Co. (Ltd.), Soochow Creek, Chapei, with a capital of 260,000 taels and with a capacity of 6,075 tons of cotton seed and 1,215 tons of oil per annum; this mill also sells linseed oil.
Shanghai Paper Mill, Pootung, town office 9 Siking Road (Japanese), with three sets of machines.
China Import & Export Lumber Co. (Ltd.), 80 Yangtzepoo Road (British).
Ewo Silk Filature, 14 Chengtu Road (British).
Soap and candle works:
  William Katz & Co., 93 Avenue Road (American).
  Gustav Boehm, 6 Sicawei Road (German).

The principal industries owned and controlled by Chinese are:

Tai Foong Canned Goods Co. (Ltd.), Ferry Road, with a paid-up capital of $132,300 Mexican.
Cigar factory: Tabaquería Filipina, North Honan Road Extension.
Cigarette factory: Nanyang Bros. Tobacco Co., corner Dent Road and Broadway.
Cotton mills:
  Anglo-Chinese Cotton Manufacturing Co., 4 Lay Road, with 11,648 spindles.
  Heng Chan Yuen, 2 Ichang Road, with a capital of 250,000 taels and with 9,392 spindles.
  Heng Foong Cotton Manufacturing Co. (Ltd.), 1 Whashing Road, with a capital of 500,000 taels and with 15,576 spindles and 400 looms.
  San Sing Cotton Manufacturing Co. (Ltd.), 87 Yangtzepoo Road, with an authorized capital of 2,100,000 taels and with 65,520 spindles and 506 looms.

Cotton mills—Continued.

Teh Dah, 1 Lay Road, with an authorized capital of 200,000 taels and with 11,100 spindles.

Tung Chang, 22 Ki-chang Road, with a capital of 300,000 taels and with 11,300 spindles.

Yu Tung, 1091 Cha-tai-ko, near Markham Road, with a capital of 500,000 taels and with 18,000 spindles and 300 looms.

Yu Yuen, 60 Markham Road, with 26,936 spindles.

Docks and shipbuilding works:

Kiangnan Dock and Engineering Works, Kao-chang-miao, south of city (under foreign management).

Nicholas Tsu Engineering and Shipbuilding Works, Avenue Benzaure, south of Chinese Bund (entirely under native management).

Flour mills:

Chung Hsung, Soochow Road, with a capital of 160,000 taels and with a daily capacity of 1,600 bags of flour and 13 tons of bran.

Fu Foong, 1 Markham Road, with a capital of 350,000 taels and with a daily capacity of 1,600 bags of flour and 35 tons of bran.

Fu Hsin Ti Erh Chang, Mokanshan Road, with a capital of 300,000 taels and with a daily capacity of 3,200 bags of flour and 10 tons of bran.

Hua Feng, 58 Markham Road, with a capital of 200,000 taels and with a daily capacity of 600 bags of flour and 8 tons of bran.

Hua Hsing, 53 North Soochow Road, with a capital of 260,000 taels and with a daily capacity of 4,800 bags of flour and 30 tons of bran.

Li Ta, 31 Jessfield Road, with a daily capacity of 2,000 bags of flour and 15 tons of bran.

Shen Ta, 71 Ki-chang Road, with a capital of 150,000 taels and with a daily capacity of 1,600 bags of flour and 13 tons of bran.

Match factories:

Hsieh Chang, 4 Tongshan Road.

Yung Chang, Lanidu, Pootung.

Oil mills:

Heng Yu, Jessfield Road, with an annual capacity of 3,900 tons of cottonseed cake and 1,170 tons of cottonseed oil.

Hsin Chang, Pootung, with an annual capacity of 6,075 tons of cottonseed cake and 1,215 tons of cottonseed oil.

Tah Teh, 86 Yangtzepoo Road, with an annual capacity of 3,240 tons of cottonseed cake and 648 tons of cottonseed oil.

Tah Yuh, 1 Ichang Road, with an annual capacity of 4,050 tons of cottonseed cake and 810 tons of cottonseed oil.

Tung Chang, 73 Kichang Road, with an annual capacity of 6,075 tons of cottonseed cake and 810 tons of cottonseed oil.

Paper mill: China Paper Mill, 5 Loongwha Road, with a capital of 460,000 taels and with two sets of machines.

Silk spinning and weaving mills:

Shanghai Silk Spinning Co. (Ltd.), 28 Jessfield Road, with a capital of 400,000 taels and with 5,100 spindles.

Shanghai Silk Weaving Mill, 371 Arthur Road.

Tannery: Lung Hua Tannery Co., Tsao-Kia-doo, with a capital of 800,000 taels.

The Ho Hsin Smelting Works, a new plant at Pootung, has begun operations and aims to become one of the leading steel works in China.

A new mill for the manufacture of fine thread is to be established in Shanghai, with a capital of $1,600,000.

COMMERCE OF THE PORT: INTRODUCTORY SUMMARY.

The following table gives the total imports and exports, foreign and Chinese, through the Maritime Customs at Shanghai during the years 1904, 1913, and 1918:

Imports and exports.	1904	1913	1918
Imports of foreign goods:			
From foreign countries and Hongkong	$128,717,118	$181,261,470	$256,456,713
From Chinese ports	1,240,840	1,554,970	7,077,049
Total foreign imports	129,957,958	182,816,440	263,533,762
Reexports of foreign goods:			
To foreign countries and Hongkong	5,945,684	8,346,695	14,973,052
To Chinese ports	94,122,129	101,381,955	143,118,374
Total foreign reexports	100,067,813	109,728,650	158,091,426
Net total foreign imports	29,890,145	73,087,790	105,442,336
Imports of Chinese products	84,460,746	150,538,547	275,708,092
Reexports of Chinese products:			
To foreign countries and Hongkong	52,056,179	100,203,268	152,769,577
To Chinese ports	19,201,507	32,028,895	50,732,383
Total Chinese reexports	71,257,686	132,232,163	203,501,960
Net total Chinese imports	13,203,060	18,306,384	72,206,132
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	33,786,589	30,937,246	87,370,399
To Chinese ports	19,137,118	31,323,879	121,511,345
Total exports of local origin	52,923,707	62,261,125	208,881,744
Gross value of the trade of the port	261,342,411	395,616,112	748,123,598
Net value of the trade of the port	96,016,912	153,655,299	386,530,212

The following table shows, by countries, the value of the foreign trade of Shanghai in 1918:

Countries.	Imports.	Exports.	Total.
British India	$5,759,851	$4,979,037	$10,738,888
Canada	9,270,403	4,831,590	14,101,993
Dutch Indies	6,162,903	1,248,292	7,411,195
France	1,611,878	35,999,322	37,611,200
Great Britain	55,012,326	26,756,753	81,769,079
Hongkong	26,126,113	18,977,066	45,103,179
Italy	408,742	11,494,047	11,902,789
Japan	98,959,679	65,952,948	164,912,627
Russia	931,462	4,105,272	5,036,734
Singapore, Straits Settlements, etc	7,869,764	2,948,638	10,818,402
United States	40,150,094	56,995,460	97,145,554
All other countries	4,193,498	5,851,551	10,045,049
Total	256,456,713	40,139,976	496,596,689

EXPORT TRADE.

From the above tables it will be seen that Shanghai is maintaining its reputation of being the chief transshipping or distributing port of China for goods sent to foreign countries.

The facts that contribute to Shanghai's position in the development of the export trade are that practically all shipping lines of any consequence from foreign ports make Shanghai their port of call, that the banking facilities are the best available in the Far East, and that the principal business houses maintain head offices at that port. Power-press packing plants established there care for the repacking of raw products that come from the interior, and this is one of the conveniences that Shanghai exporters enjoy. Such plants have long been established, and the operators thoroughly understand the packing required to meet the rough handling to which goods going to Europe and America are subjected. The Shanghai-Nanking Railway and the Shanghai-Hangchow-Ningpo Railway are also important factors in the development of export trade from Shanghai, traversing as they do some very rich agricultural districts.

In every sense, therefore, Shanghai is preeminently the best port at which to conduct the export trade from China. The only recent handicap to the further extension of the export trade from this port may be said to have been the lack of boats, but this condition has existed all over the world and can not be said to apply to this port alone. This shortage of space has made shipping rates almost prohibitive for some classes of articles.

The following table shows the value of the chief items of export (including reexports) from Shanghai for the years 1904, 1913, 1915, and 1918:

Articles.	1904	1913	1915	1918
Beans:				
Black	$118,553	$175,630	$250,122	$362,090
Broad		1,825,471	508,858	1,093 388
Green	454,401	1,231,089	642,103	620 751
Yellow	3,478,045	2,921,896	1,542,138	2,129,644
Breadstuffs: Flour, mill	1,312,966	3,857,236	6,456,526	21,861,706
Bristles	1,405,678	2,616,770	2,488,415	5,362,432
Cotton and manufactures:				
Cotton, raw	17,238,520	10,354,009	6,526,691	35,049,631
Nankeens		3,482,543	3,107,369	5,533,600
Sheetings	262,597	1,251,870	1,692,330	10,496,902
Yarn	2,738,195	10,691,146	13,465,055	59,826,194
Egg albumen and yolk	259,969	1,708,587	2,704,315	8,344,764
Fiber, ramie		1,925,104	1,600,922	4,492,055
Peanuts	400,954	3,008,737	5,172,745	5,746,254
Hides:				
Buffalo	488,339	912,508	382,381	786,991
Cow	3,647,330	7,224,360	7,125,235	10,593,842
Metals: Antimony, regulus and crude	198,271	433,292	2,675,297	2,520,311
Oils:				
Cottonseed	1,916	415,168	527,764	1,107,520
Peanut	1,106,197	2,086,370	1,696,873	2,892,567
Seed:				
Rape		1,263,296	1,819,199	2,230,163
Sesame	1,289,226	7,398,590	5,317,880	1,402,729
Silk, and manufactures of:				
Raw—				
Yellow	2,226,372	3,929,846	4,027,860	6,941,802
White	6,162,274	23,086,180	22,212,661	35,939,979
Wild	5,645,554	4,326,068	2,962,568	6,156,183
Cocoons	364,622	1,325,767	1,423,555	2,788,598
Waste and cocoon refuse	901,501	3,158,858	3,032,666	8,517,218
Piece goods	6,589,642	6,544,491	5,022,868	(*a*)
Skins, goat, untanned	2,314,837	2,985,892	2,131,388	5,870,731
Straw braid	2,416,948	1,223,939	1,396,382	2,281,682
Tallow:				
Animal	122,369	462,259	407,260	1,214,735
Vegetable	612,952	1,300,191	1,179,397	2,584,656
Tea:				
Green	6,336,746	8,324,151	9,787,029	9,280,596
Black	1,028,990	2,747,617	6,824,233	3,675,682
Wool:				
Camel's hair	300,326	541,470	543,652	(*a*)
Sheep's	2,587,479	3,748,503	5,282,900	5,981,170
All other articles	52,169,624	66,004,384	54,427,361	138,497,088
Total	124,181,393	194,493,288	188,363,998	412,383,704

a Figures not available.

The following table shows, by quantity and value, the articles declared at the Shanghai consulate general for exportation to the United States and its possessions during the calendar years 1917 and 1918.

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO UNITED STATES.				
Antimony:				
Crude ... pounds	448,018	$38,192	446,880	$26,202
Regulus ... do	1,627,224	250,792	9,960,523	1,059,767
Oxide ... do			152,000	10,843
Art, works of:				
Antique porcelain		155,391		32,696
Embroideries		11,751		110
Horn, amber, jade, and other ornaments		64,645		36,674
All other		54,189		16,956
Bristles ... pounds	526,562	432,178	714,550	832,677
Chemicals:				
Albumen ... do	3,686,479	2,635,649	1,204,438	629,822
Camphor ... do	191,455	105,694	365,229	233,037
Gallnuts ... do	931,895	192,562	897,209	280,252
Musk ... ounces	10,392	147,214	5,629	98,528
Rhubarb ... pounds	276,470	54,816	38,694	15,973
Copper slabs ... do	448,000	120,950		
Cotton:				
Raw ... do	6,761,227	1,609,477	2,401,483	764,496
Waste ... do	1,137,365	99,171	21,408	3,370
Laces and embroideries		563,888		370,681
Earthenware: Chinaware		113,025		14,132
Eggs:				
Fresh ... dozen	229,830	48,078	404,640	133,175
Dried ... pounds	2,342,487	434,238	434,171	143,012
Frozen ... do	1,787,464	235,0 6	2,301,265	419,117
Yolks, dry ... do	5,381,192	1,599,266	137,151	80,442
Feathers and downs ... do	3,490,101	763,905	2,050,276	624,244
Fibers:				
China grass ... tons	174	58,473	1,307	458,318
Hemp ... do	294	84,927	62	21,208
Ramie ... do			557	198,026
Vegetable ... do	426	113,763	5	1,763
Fiber hemp braid				12,254
Fruits and nuts:				
Peanuts—				
Shelled ... pounds	537,791	33,204	252,000	26,402
Unshelled ... do	1,215,688	59,867	571,050	51,054
Walnuts—				
Shelled ... do	144,549	18,292	79,890	21,294
Unshelled ... do	258,530	20,335	50,000	6,250
Furs:				
Dressed—				
Dog mats		87,739		61,404
Undressed—				
Cat		11,626		9,183
Deer and doe		559,073		352,040
Goat		6,873,503		5,212,620
Marmot		24,365		33,863
Rabbit		12,048		7,663
Raccoon		1,893		59,201
Sable				18,584
Sheep and lamb		143,646		67,256
Squirrel		1,893		40,700
Tiger		9,883		
Weasel		78,314		125,058
Grease and oils:				
Animal tallow ... pounds	75,601	13,004	1,243,957	198,594
Vegetable tallow ... do	1,203,325	191,908	2,392,524	404,371
Hair:				
Horse, including combings ... do	48,725	7,492	7,981	1,293
Human—				
Cleaned ... do	163,215	57,413	38,036	16,015
Combings, including waste ... do	463,457	147,771	170,388	63,352
Stumps ... do			88,557	32,614
Hair nets		241,104		221,074
Hats, rush, straw, and woodshaving		288,046		31,442
Hides:				
Buffalo—				
Dry ... pieces	37,182	436,623	10,308	119,161
pounds	1,433,448		567,252	
Salted ... pieces	159	1,691		
pounds	12,259			
Cow—				
Dry ... pieces	317,107	1,735,380	202,730	755,776
pounds	3,811,149		2,064,229	
Salted ... pieces	80,658	966,395	23,857	197,962
pounds	6,649,792		621,426	
Donkey ... pieces			4,624	13,120
pounds			31,777	
Horse and pony ... pieces	1,448	2,405	791	4,414
pounds	9,694		12,873	

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO UNITED STATES—continued.				
Household and personal effects		$17,628		$18,147
Iron, pig ... tons	3,492	65,473		
Meat and dairy products:				
Hog casings		466,606		367,771
Lard ... pounds			35,000	7,716
Metals:				
Tungsten ore ... tons	5	4,492	339	349,373
Concentrates (tungsten) ... do			227	198,508
Wolframite ore ... do			143	160,577
Oils, vegetable:				
Bean ... pounds	183,591	27,286	375,000	48,082
Castor ... gallons	79,280	125,892	552,817	103,481
Cottonseed ... pounds	7,387,423	758,524	16,160,603	2,199,807
Peanut ... gallons	836,728	853,638	1,402,596	1,785,640
Rape ... pounds	779,685	103,861	717,362	101,440
Sesame ... do	4,611	767	230,713	40,545
Wood ... gallons	177,255	65,666	643,141	1,081,809
Paper:				
Books		14,663		9,574
Calendars		12,434		
Platinum ... ounces		492	120	13,038
Seeds, sesame ... pounds	79,400	7,878	963,520	84,017
Silk and manufactures:				
Cocoons ... do	113,682	114,206	25,776	28,238
Pongees		1,204,371		221,546
Raw ... pounds	3,143,059	17,689,891	2,478,574	13,902,312
Waste ... do	1,486,138	1,132,050	4,354,182	3,889,652
Wild ... do	981,775	3,010,003	1,004,298	2,950,522
Yarn ... do			39,140	175,922
Stones, semiprecious		30,616		10,308
Soapstone ornaments		10,389		525
Straw braid		136,705		227,990
Tea ... pounds	17,748,847	4,567,748	10,112,063	3,186,800
Tea sweepings ... do	300,500	41,274	130,380	32,640
Tobacco leaf ... do	6,125,444	1,292,816	2,319,840	763,840
Vegetables: Peas ... bushels	146,003	315,614	2,226	9,462
Wax: Paraffin ... pounds			448,000	69,810
Wool: Sheep ... do	8,761,397	2,730,224	3,063,538	1,026,019
Wool carpets ... square feet	64,354	50,024	777	822
All other articles		333,519		132,988
Total		57,196,933		47,868,519
TO PHILIPPINE ISLANDS.				
Breadstuffs:				
Flour, Chinese ... barrels[a]	102	603	12,095	125,657
Canned biscuits ... pounds			29,466	8,437
Vermicelli ... do			98,371	12,949
Oats ... tons			144	11,775
Candles		3,106		3,237
Coke ... tons			50	2,331
Cotton manufactures:				
Cloth		67,503		46,707
Laces		12,608		4,686
Nankeens ... pounds	82,150	27,262	126,371	51,422
Piece goods		4,387		6,108
Yarn ... pounds			201,398	85,323
Eggs, fresh ... dozen			4,500	1,002
Electrical fittings				1,652
Fruits, canned				2,464
Household and personal effects		2,164		1,434
Ink, printing ... pounds			1,228	983
Iron and steel, and manufactures of		3,584		11,714
Meat and dairy products:				
Canned meats		5,068		24,508
Hams ... pounds	514,763	180,664	594,428	209,823
Lard ... do			238,214	57,697
Milk, sterilized ... do	7,685	658	8,800	1,283
Musical instruments: Pianos				15,913
Nuts: Peanuts—				
Shelled ... pounds			114,305	6,016
Unshelled ... do			115,573	6,085
Oils:				
Lubricating ... gallons	1,000	808	9,322	7,025
Liquid fuel ... tons	510	10,712		
Peanut ... gallons	1,628	1,626	6,525	5,226
Paper:				
Books		862		1,265
Cigarette ... pounds	3,600	752		

[a] Barrel equals 196 pounds.

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO PHILIPPINE ISLANDS—continued.				
Photographic goods: Motion-picture films..linear feet..	35,545	$3,198	24,410	$965
Silk, and manufactures of:				
Piece goods	....	19,380	....	29,077
Pongees	....	4,983	....	1,167
Raw..........pounds..	17,375	72,891	17,631	68,824
Stones, precious: Diamonds	....	....	....	3,500
Straw braid	....	329	....	2,663
Varnish, printing..........gallons..	....	....	429	1,262
Vegetables:				
Beans..........pounds..	....	....	522,205	17,622
Garlic..........do...	....	....	129,063	4,498
Wax	....	1,475	....	....
All other articles	....	22,934	....	27,481
Total	....	447,557	....	869,781
TO HAWAII.				
Cotton laces	....	149	....	663
Earthenware: Chinaware	....	1,427	....	412
Eggs, fresh	....	504	....	23,883
Iron, pig..........tons..	125	6,049	....	....
Meat and dairy products:				
Canned meats	....	5,769	....	1,391
Ham..........pounds..	1,517	381	....	....
Oil, peanut..........do...	25,920	3,076	15,480	4,612
Paper: Books, printed	....	....	....	1,333
Tea..........pounds..	2,000	377	....	....
All other articles	....	140	....	711
Total	....	17,872	....	33,035

Exports from Shanghai to the United States during the first six months of 1919 were valued at $33,678,791.

In order to afford a basis of comparison with prewar conditions, the following table is given, showing the value of the declared exports from Shanghai to the United States and its possessions during 1913, the last normal year before the outbreak of hostilities:

Articles.	Value 1913.	Articles.	Value, 1913.	Articles.	Value, 1913.
TO UNITED STATES.		Millet seed	$2,350	TO PHILIPPINE ISLANDS.	
		Oils, vegetable	409,054		
Antimony regulus	$6,763	Oil cake, cotton seed	1,727	Candles	$4,769
Beeswax	9,314	Paper	7,321	Cotton, manufactures of	9,561
Brass ornaments	2,574	Photographic goods (films)	2,963		
Breadstuffs	6,293				
Bristles	81,511	Seed	5,202	Iron and steel, manufactures of	5,873
Chemicals	534,690	Silk	9,904,814		
Cotton	28,042	Silk, manufactures of	20,192	Meat and dairy products	1,493
Earthenware: Chinaware	12,072				
Eggs	32,257	Stones, manufactures of (soapstone ornaments)	618	Photographic goods (motion-picture films)	83
Feathers	57,057	Straw and grass	102,098	Silk, raw	16,773
Fibers	3,099	Tea	2,401,131	All other articles	3,088
Fruits and nuts	84,588	Tin	5,288		
Furs:		Vegetables	8,218	Total	41,640
Dressed	28,636				
Undressed	1,298,452			TO HAWAII.	
Grease and oils	7,253	Vegetables, prepared or preserved (bean cake)	16,798		
Hair	57,540			Iron, pig	2,394
Hats	15,396	Wood, and manufactures of	2,071		
Hides	599,037	Wool	1,614,291	Paper, manufactures of	583
		Wool carpets and rugs	4,178	Tea	148
Household and personal effects	24,069	All other articles	33,084	All other articles	242
Meat and dairy products	15,294	Total	17,440,335	Total	3,367

Shanghai is practically the sole outlet for silks from North China, although Chefoo has become important in tussahs. The white silk exported from Shanghai is produced in Kiangsu, Chekiang, and the Yangtze Valley Provinces; Wusih, in Kiangsu, produces the finest white silk in the world. Shaoshing, in Chekiang, is a close competitor. Yellow silk comes chiefly from Shantung, Honan, Hupeh, and Szechwan Provinces. Wild silk comes principally from Manchuria and Shantung Provinces. The new crops from the north reach the Shanghai market in May and June, and the new crop of wild silk in October. The trade year begins June 1 of one year and ends May 31 of the next.

While Shanghai produces no tea, it handled in a recent year, by reason of its central position, 153,198,267 pounds of tea, valued at $23,203,140 gold. Most of this tea came originally from Hankow, Kiukiang, Hangchow, and Ningpo. Tea begins to arrive in Shanghai early in June or sometimes in May, and arrivals continue until December.

Cotton seed is sown in May, or as soon as the wheat crops are cleared. The picking months are August to October. Wheat and rice grown in this district are mostly consumed in the district, the latter by the native population as their chief article of food, and the former by the flouring mills in Shanghai. The other products mentioned in the list of exports come chiefly from other ports and are dealt with in detail by consular officers in the districts from which they come. Reference to other products grown in this district will be found under the heading "Agriculture" (p. 251).

The imports at Shanghai of Chinese products from native ports increased more than threefold between 1904 and 1918, demonstrating that, while certain ports are trying to import their foreign goods direct, exportations to foreign countries are still made through Shanghai because of its favorable location and facilities. While a considerable portion of such imports remains at Shanghai, it is probable that the largest percentage is held for transshipment, awaiting a favorable opportunity for shipment elsewhere.

IMPORT TRADE.

LINES THAT SHOULD INTEREST AMERICAN MANUFACTURERS.

Of imports from foreign countries, brass and iron bedsteads ought to be of interest to American manufacturers; these have come principally from Great Britain heretofore, but during the past few years American bedsteads have been largely advertised by the leading retail stores. Machine belting has also been supplied chiefly by Great Britain, but the imports from the United States have shown very great increases. In butter, at the present time, the United States stands a fair chance, owing to the difficulty of procuring it from Australia and Russia. Stearine for the manufacture of candles is also an item that was previously imported chiefly from Great Britain, but the largest quantity is now coming from the United States; it is doubtful, however, whether this trade can be retained, unless prices and quality are able to compete with the British product, because the largest manufacturing concern is owned by the British. Canned fruits are generally imported from America and are holding their own. In canned milk the American product has always held the premier place in this market, though the British product has been boomed a great deal during the last few years. In chocolates the American product is gaining, a little, though Great Britain still sends out the most; one large importer of these goods has stated that the American chocolate candies are too large for this market—they should be made about one-half the present sizes.

In coffee the United States has always led, but importations are coming in from the Dutch East Indies in increasing quantities. These latter are chiefly from plantations owned by Shanghai rubber companies. However, American coffee is considered the best.

In cotton, India heads the list, with American importations next. The importation of this item depends entirely upon the state of the local crop. In 1915 the imports increased considerably on account of short crops, the local mills having to import large quantities from abroad.

In manufactured cotton goods, Shanghai's most important articles of import, there is no doubt that the sale of American products has decreased considerably. While Japan has, no doubt, been a keen competitor in American lines of cotton goods during the past decade, and especially during recent years, the following quotation from Trade Commissioner R. M. Odell's report on the subject covers the position quite thoroughly:

> American cotton goods reach China through export houses in New York with branches in China. Most of these are American firms, but a few large English firms and one Japanese firm with New York offices handle some of the business. The number of firms engaged in the trade is not nearly so large as formerly, owing to the rapid decline in the sales of American cotton goods and the losses that many firms suffered following the boom days of 1905 and 1906, during and immediately after the Russo-Japanese War. The export houses in New York purchase goods from the agents of the mills and in two important particulars the methods employed are radically different from the methods used by the English. In the first place, the goods are usually sold under the mill brand and not the brand of the importer as in the case of English goods. Secondly, except in a few rare instances, no one export house has exclusive control of a mill brand in the China market.
>
> It is not to be doubted that the American methods have their advantages. If the mill brand is used and it becomes firmly established on the market, the mill secures the benefit of the increased demand. If the importer has his own brand put on the goods the mill loses its identity, and it is always possible in standard cloths, such as sheetings and drills, for the importer to secure his supply of goods from another source if any differences regarding price, quality, shipments, etc., arise with the original mill. This works a hardship on the mill which may have special preparations for producing the particular kinds of goods in demand.
>
> American manufacturers have also generally refused to confine a certain brand to one importer, preferring rather to sell to any firm that desired to buy. While the practice of giving exclusive control of a brand to one firm may be subject to some abuse and may restrict trade, it is undoubtedly a farsighted and commendable policy if due care be taken in the selection of the firm and proper support and cooperation be given to it. By far the greater part of the English trade has been built up along these two lines, the importer using his own brand and having the exclusive right to the sale of goods under it. This gives him an incentive to build up a trade, because, once a demand for the goods is established, he is sure of a profitable return for his efforts and expense in introducing them. The importer who handles American goods, on the other hand, is on the same basis as many of his competitors, who have an equal opportunity to buy the same goods under the same brand.
>
> From the importers' standpoint there are two great disadvantages in this system. In the first place, if an importer selects a certain brand of American cloth and succeeds, after considerable work and expense, in establishing it in the market, he soon finds that competing firms can purchase the identical goods and secure some of the benefits which he has made possible in making the cloth popular in the market. In the second place, this practice, in the opinion of many, often results in that great demoralizing and depressing influence in the Chinese cotton goods trade, the overflooding of the market. A brand of American sheetings may, through the aggressive efforts of an importer, become well established on the market and be in good demand; other firms with New York branches or connections, hoping to profit by the popularity of

the brand, may order on their own account a quantity of the same goods, taking advantage of the mill agents' policy of selling to all who want to buy. The immediate result is that the market becomes overstocked; dealers are induced to load themselves up with more goods than they require, competition reduces prices to such a low level that there is no profit in handling the goods, and the importers become disgusted with the whole business and turn to other lines. The competition of cheap Japanese sheetings and drills has been a strong factor in the decline of the American cotton goods trade in China, and its importance should not be overlooked; but the disappearance of many brands of American cloths which formerly had a good sale in the market has been hastened, in the opinion of practically every importer whom I interviewed, by the failure of American manufacturers to properly conserve their interests and confine the sale of certain brands to one single firm.

The dye trade has been almost entirely monopolized by the Germans in the past, but as a result of the war the imports from that country have been reduced to nothing. Here is an opportunity that American manufacturers should not overlook. In the year 1913, the year before the war, imports of aniline dyes and artificial indigo from Germany into China amounted to more than $9,000,000 gold out of a total of less than $11,000,000.

In electrical materials and equipment the United States has been forging ahead during the past three years, but Japan and Great Britain are formidable competitors, and Germany, which at one time had the largest trade in this line, may have to be reckoned with when the war is over. American electrical machinery and supplies bear a favorable reputation, and, when national favoritism is not shown, there ought to be increasing sales as years go on. The increased purchases of American electrical machinery in China during the past several years are due more to the impossibility of securing the goods from Great Britain than to any preference for American machinery. Orders of any importance are generally called for by tenders, and the municipal council, the largest buyer, does not bind itself to accept the lowest or any tender. Several of the large American manufacturers of electrical machinery are now represented in Shanghai, with the assistance of technical staffs, and ought to be able to take advantage of every opening or call for this class of machinery.

Enameled ware used to be a specialty from Austria-Hungary and Germany, being very low in price. But since the war Japanese enameled wares have almost entirely monopolized the trade. Imports from the United States have increased, but it is claimed that American enameled ware is too expensive, though the quality is conceded to be superior.

Window glass for this market was formerly supplied almost exclusively from Belgium, but Japan holds about four-fifths of this trade at the present time, the remainder of the glass coming from America.

Softwood lumber, of which about 50 per cent formerly came from the United States, has lost ground considerably as a result of high freight rates. But it is expected that this condition of the American lumber trade with China will only be temporary and that, with the return of normal shipping conditions, American lumber will again take its proper place in the trade of Shanghai.

Up to the year 1915, cotton-mill machinery came almost entirely from Great Britain, but, during the year 1916, large orders were placed with American houses by Chinese interests. As years go by there is no doubt that the cotton industry will assume immense proportions, and there should be a splendid opportunity for American cotton machinery in the development of this industry. The predominance of British cotton machinery at the present time is due to the fact that most of the mills are controlled by the British.

In propelling machinery, such as boilers, turbines, etc., American products have been coming in large quantities since the war, but Great Britain remains the principal exporter. British shipping generally stands at the head of Shanghai's carrying trade; therefore it is only natural that most of the propelling machinery should be imported from Great Britain.

In medicines, Japan and Great Britain hold the largest share of the trade, but during the war period American goods have been imported in increasing quantities.

The United States leads in the iron and steel trade, and it is not likely that any other country will be able to take away this lead.

The United States has always been the leading exporter to China of kerosene and lubricating oils. The foremost American producers of these oils are represented in Shanghai by their own staffs. Japanese illuminating oil is, however, steadily encroaching upon the American trade in this product, because, though it is of inferior quality, it can, for that reason, be sold very much more cheaply. The Chinese consumers of this illuminant, the agricultural and coolie classes, are influenced more by the price than by the quality of the oil.

Soap is imported chiefly from England and Japan. A particular brand of American bar soap has lately been introduced and has, it is understood, met with a certain measure of success.

Tobacco leaf has come chiefly from the United States and its possessions during the past, but since the war, owing more to shortage of shipping facilities than to any other cause, the quantities have decreased considerably.

In locomotives and tenders there should be a great future for American products at the close of the war. At present very little progress is being made in the increasing of railway facilities, principally on account of the difficulties of finance.

SALES BY AUCTION.

Approximately one-third of the imported piece goods are sold by auction, and this method of selling has been confined principally to English goods. Some of the firms sell on their own account, others sell on joint account with the manufacturers; and the fact that this method has been carried on since the seventies shows that it must have been profitable, though at times losses have occurred.

Following the revolution of 1911, failure among native merchants to take up goods ordered became very common, and especially in the piece goods trade it worked considerable hardship to the importers; carrying over charges were high and profits on piece-goods transactions low. Instances have occurred in which firms had to close up owing to the inability of their indentors to meet their obligations. Within the last few years, however, conditions have improved, because of the difficulty of procuring goods.

SALES THROUGH COMPRADORS.

Business in practically all lines, and in piece goods in particular, is done through compradors. Every firm of any consequence has a comprador of good financial standing and his set of market shroffs who keep in close touch with market conditions and are able to determine the financial standing of native dealers, enabling the firm to do business with safety, because, to a greater or less degree, the comprador guarantees the firm against any loss that may occur through the failure of a buyer to take up goods ordered.

The compradors of to-day are, however, more inclined to speculate on their own account than in former times, and as they possess great influence with their employers their speculations are winked at, since, in practically every case, the comprador has a fund of a certain amount deposited with his employer, who generally recoups himself from this fund.

It has lately been urged that it is possible to eliminate the comprador, but, as conditions are at present, it would appear that any other system of selling would, in the long run, be more expensive. This is a system that has been handed down from generation to generation. It is admitted that attempts to sell goods directly to natives have met with a fair measure of success, especially in such lines as kerosene and tobacco; but when several lines are handled the comprador is still the man (in spite of the fact that there are foreign salesmen) who can tell whether or not the prospective buyer is dependable.

VALUE OF PRINCIPAL FOREIGN ARTICLES IMPORTED.

The following table shows the gross value of the principal foreign articles imported into Shanghai from foreign countries and Hongkong during the years 1904, 1913, 1915, and 1918:

Articles.	1904	1913	1915	1918
Arms and munitions	....	$429,438	$31,728	(a)
Bedsteads, brass and iron	$31,775	150,742	72,702	(a)
Belting, machine	53,108	135,263	148,364	(a)
Benzine	....	33,021	60,659	$188,198
Biscuits	52,197	65,239	36,104	(a)
Books, printed	148,052	218,751	112,795	263,891
Building material	42.547	31,798	63,117	(a)
Butter	143,331	177,640	133,753	378,915
Candle-making stearin	....	135,726	146,856	288,527
Candles	361,163	177,066	201,400	1,015,387
Canned goods:				
Fruits and vegetables	63,175	117,383	70,724	192,303
Meats	46,762	20,372	21,842	(a)
Milk	150,974	210,054	205,137	400,322
Chocolate	5,356	5,394	14,692	(a)
Cigarettes	1,634,581	4,958,406	4,832,907	16,133,789
Cigars	165,596	239,527	180,410	666,732
Clocks	134,739	231,532	113,288	238,957
Coal	2,888,404	3,933,333	2,831,643	9,495,652
Coffee	20,069	42,425	40,561	165,286
Cotton, raw	248,467	1,891,280	3,850,944	6,600,422
Cotton goods:				
Drills—				
American	3,333,519	1,551,400	234,639	246
English	223,417	133,367	33,741	35,146
Japanese	76,176	545,595	557,195	1,041,871
Dyed cottons—				
Italians, plain, black	4,224,789	4,070,050	2,270,199	4,291,257
Venetians, black	....	1,704,017	1,718,217	2,779,531
Flannels, plain, dyed, and printed, 30 yards—				
American	1,003,735	839,723	428,109	....
English	97,794	278,056	27,688	6,016
Japanese	48,333	43,554	194,353	973,873
Jeans—				
American	301,772	119,217	11,093	59,061
English	679,779	3,574,765	1,992,181	647,565
Japanese	....	29,545	695,567	6,016,430
Sheetings—				
American	4,487,683	4,531,799	1,226,990	522,998
English	1,255,890	352,159	119,646	58,180
Japanese	194,185	320,688	368,968	3,059,168

a Figures for 1918 not available.

Articles.	1904	1913	1915	1918
Cotton goods—Continued.				
Shirtings, grey—				
American	$473,998	$120,302		
English	6,700,875	8,724,315	$4,939,645	$3,080,949
Japanese	6,239	24,736	285,268	2,128,301
Shirtings, white—				
American	611	6,990		
English	5,385,022	10,367,379	6,208,910	8,732,486
Japanese		25,287	158,132	2,244,952
T-cloths—				
English	775,406	1,951,649	700,950	681,039
Japanese	52,875	194,990	192,455	775,744
Thread	141,843	257,868	218,392	164,472
Yarn, grey and bleached—				
Indian	15,668,523	13,210,270	8,832,496	5,502,545
Japanese	8,014,658	10,331,955	7,941,432	11,561,040
Dyes:				
Aniline	987,882	2,647,962	41,875	1,714,557
Indigo—				
Liquid, artificial	609,321	5,691,531	2,280,086	(a)
Paste		446,847	217,015	(a)
Electrical materials	156,186	985,133	648,145	1,349,927
Enameled ware:				
Basins		292,700	26,724	357,380
Bowls, cups, and mugs	22,068	92,368	22,554	(a)
Unclassed	38,949	137,906	13,356	(a)
Fire-extinguishing apparatus	4,165	19,308	18,158	(a)
Flour, wheat	227,027	572,283	52,603	95,990
Garters and suspenders		101,767	60,052	475,725
Gasoline	1,142	3,061	8,318	(a)
Glass, window	192,126	252,553	162,827	452,185
Graphophones and accessories	51,225	59,479	78,671	102,662
Haberdashery, millinery, and drapery	243,032	289,180	170,615	395,937
Hosiery	15,792	75,238	41,714	103,249
Instruments:				
Drawing, nautical, and surveying		39,373	29,668	(a)
Medical and surgical	21,316	77,349	52,502	(a)
Lamps and lamp ware	181,142	357,155	81,464	279,485
Lanterns, all kinds		99,735	4,995	
Leather:				
Calf, kid, and colored	10,715	112,483	40,753	325,592
Cow—				
American and European	13,951	1,888	1,096	(a)
Hongkong and Straits	51,510	256,644	298,616	1,228,253
Sole	30,424	101,652	48,947	375,685
Locks and padlocks, brass and iron		91,019	54,664	131,774
Lumber:				
Hardwood	191,639	169,372	177,204	821,748
Softwood	775,793	1,569,048	956,515	2,620,864
Teak	101,797	189,865	110,121	(a)
Machinery:				
Cigar and cigarette	544,069	12,732	3,182	(a)
Cotton-mill		506,512	736,910	1,504,736
Electric		54,360	62,557	488,284
Flour-mill		64,164	61,030	90,372
Printing		140,395	36,659	(a)
Propelling (boilers, turbines, etc.)		182,753	171,270	554,596
Machines, sewing and knitting	23,791	181,214	61,487	(a)
Meats: Bacon and ham	46,762	54,753	31,249	(a)
Medicines	169,119	368,919	339,167	1,626,561
Medicines, patent		272,615	236,029	
Metals:				
Iron and mild steel, all kinds	2,439,757	3,585,077	2,273,752	7,639,291
Iron, galvanized, all kinds	250,395	819,402	498,658	658,955
Lead, pigs and bars	373,487	260,702	323,137	483,151
Steel	119,572	183,407	24,947	(a)
Tin—				
Slabs	505,497	201,963	163,350	709,725
Plates	219,526	372,015	797,730	3,960,719
Needles	324,643	331,108	21,930	(a)
Oil:				
Lubricating	132,754	234,106	374,134	1,356,167
Kerosene	10,050,968	3,602,748	8,735,065	12,806,281
Opium, Indian	14,050,781	22,227,608	12,213,352	
Paper, all kinds	586,174	2,556,552	1,585,792	2,667,766
Paper-making material: Wood pulp	40,049	81,172	66,091	265,811
Perfumery	89,992	144,491	100,015	(a)
Photographic materials	62,189	87,658	73,794	135,706
Piece goods:				
Canvas	53,379	118,714	44,334	71,615
Cotton duck	33,141	105,204	63,479	93,413
Printing ink	9,096	73,812	54,009	172,973
Provisions		132,033	95,780	159,950

[a] Figures for 1918 not available.

Articles.	1904	1913	1915	1918
Railway material: Bridge-construction materials, wooden sleepers, etc	$20,929	$91,222	$141,227	(a)
Shoes and boots, leather	37,547	80,855	55,738	(a)
Shooks for barrels, casks, etc		43,944	62,158	(a)
Singlets and drawers: Cotton and wool underwear	42,666	342,770	100,391	$388,541
Soap, all kinds	475,100	1,201,670	734,286	1,380,630
Socks, cotton	124,652	815,546	167,796	726,784
Soda ash	171,590	352,114	260,639	1,171.026
Stationery: Account books, blank books, etc	155,586	328,592	125,964	281,827
Stoves and grates	36,676	160.006	47,756	(a)
Sugar, all kinds	5,006,351	8,547,220	8,063,991	23,522,497
Telegraphic materials	185,969	103,397	112,837	132,016
Telephones, and material for		82,236	31,490	
Tobacco, leaf	121,912	1,482,144	276,654	5,584,271
Toilet requisites	63,563	118,500	73,003	(a)
Typewriters and accessories	17,479	66,690	64,966	184,973
Vehicles:				
Locomotives and tenders		117,248	140,971	(a)
Motor cars and accessories	27,105	242,305	234,405	(a)
Railway cars and wagons		15,524	75,490	(a)
Watches	182,408	171,963	71,545	441,302
Wines, spirits, beers, liquors, etc	774,678	754,739	491,569	1,997,757
Woolen and cotton mixtures:				
Blankets and rugs	122,327	158,151	1,732	(a)
Melton cloth		312,462	12,945	(a)
Union and poncho cloth	96,651	382,393	118,147	151,988
Woolen goods:				
Coatings		68,838	36,688	298,698
Broadcloth	297,118	293,922	11,634	(a)
Suitings		108,374	28,933	363,679
Wool, "Berlin"	338,730	497,360	232,951	443,086
All other articles	27,028,320	36,087,981	27,026,673	82,719,298
Total	128,717,118	181,261,470	121,307,203	256,456,713

[a] Figures for 1918 not available.

In shipping facilities Shanghai in normal times enjoys every convenience. Lines from Europe, America, and Japan call constantly at Shanghai, and competition among them is very keen. At the present time shipping facilities are very restricted and freight rates abnormally high.

To well-established firms the Shanghai banks extend the same facilities as are generally afforded in the United States. In addition, the banks as a rule can furnish American manufacturers with all the necessary information regarding the standing and reputation of firms located there.

The distribution of goods is generally undertaken through the comprador, who generally holds himself responsible for the goods so disposed of. Storage accommodation is afforded at the public warehouses, though large importing firms generally have their own warehouses. Imported goods pay, in general, a duty of 5 per cent ad valorem. A sum equal to one-quarter of 1 per cent is charged for river conservancy and wharfage dues.

By paying a sum equivalent to one and one-half times the usual duty, a transit pass is issued which entitles the goods to travel throughout the country without any further charge.

As regards packing, generally speaking, goods subject to deterioration by heat and moisture should be packed in tin or zinc lined wooden cases. All other goods should be packed in such a manner as to enable them to withstand the rough handling in loading, unloading, etc., on such long journeys. Boxes should be thoroughly strap-ironed in every case.

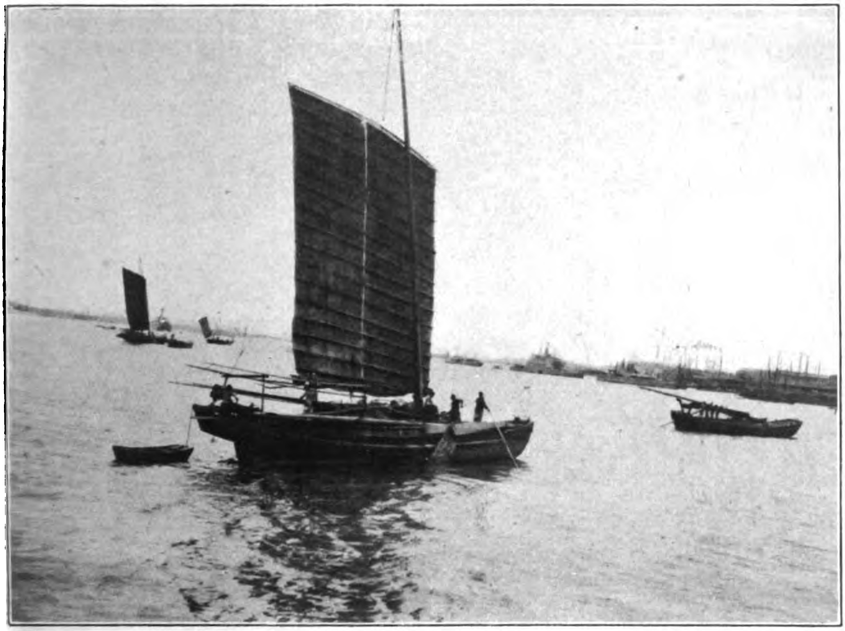

FIG. 26.—CHINESE CANAL AND HARBOR BOAT WITH SAIL UP, SHANGHAI.

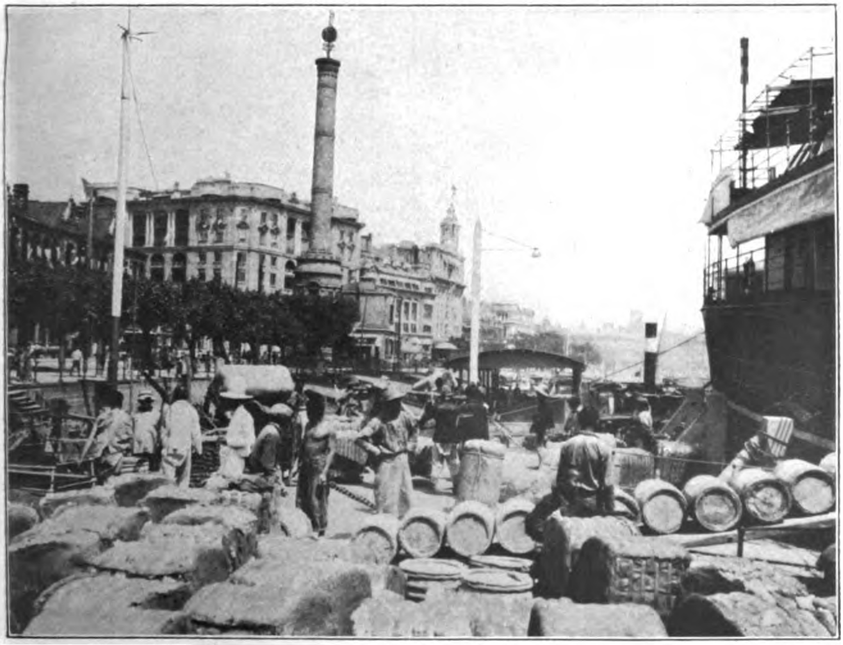

FIG. 27.—WORKING CARGO ON A PONTOON OR LANDING STAGE, SHANGHAI.

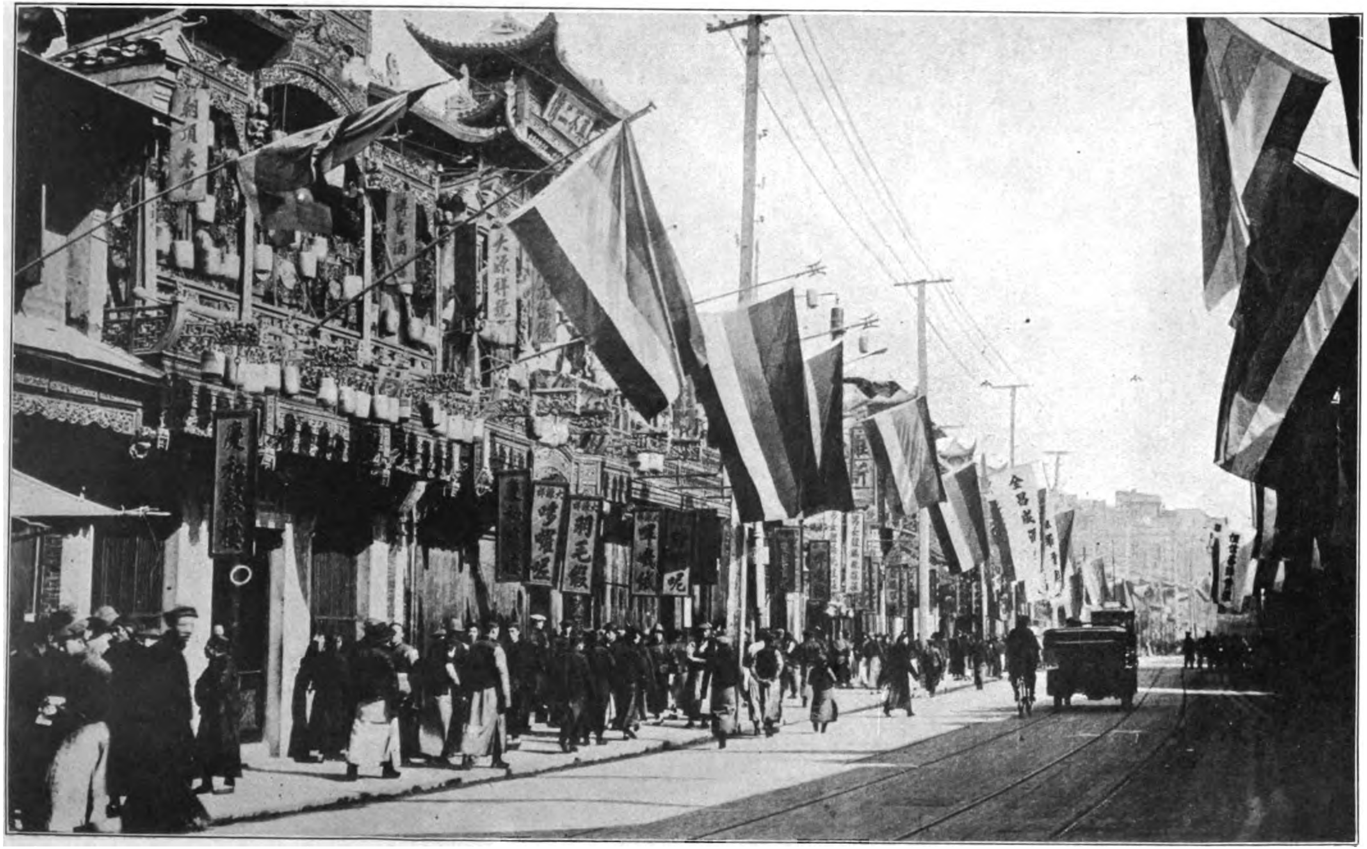

FIG. 28.—NANKING ROAD, SHANGHAI.

The Broadway of the Far East.

SHIPPING FACILITIES FOR TRADE WITH UNITED STATES.

As stated elsewhere in this report, shipping facilities to the United States are ample and rates are very reasonable in normal times.

The principal steamship lines between Shanghai and the United States are the China Mail Steamship Co. (American), the Pacific Mail Steamship Co. (American), and the Toyo Kisen Kaisha (Japanese), all running to San Francisco. The last-named lines have a monthly service between the ports named. The Canadian Pacific Services (British) maintain four steamers with connections to the United States and Europe via Vancouver, British Columbia. They have about two sailings a month each way. The Osaka Shosen Kaisha (Japanese) runs steamers to Tacoma and Seattle every fortnight. The Nippon Yusen Kaisha (Japanese), calling at Victoria, British Columbia, and Seattle, Wash., has sailings about once a month.

Sailings from Shanghai to New York direct are maintained, but this service is at the present time very irregular.

The shipping facilities between Shanghai and other treaty ports in China are as follows:

Shanghai-Amoy-Swatow and vice versa.—Sailings about the end of the week in both directions by steamers of the China Navigation Co. (British).

Shanghai-Foochow.—Sailings irregular; trip takes only two days; China Merchants Steam Navigation Co.

Shanghai-Hankow.—On this run steamers call at Chinkiang, Wuhu, and Kiukiang. The China Navigation Co.'s steamers leave Shanghai every Tuesday, Wednesday, Friday, and Saturday. The Indo-China Steam Navigation Co.'s (British) steamers leave Shanghai every Monday, Tuesday, Wednesday, and Friday. The China Merchants Steam Navigation Co.'s steamers (Chinese) leave Shanghai Monday, Tuesday, Thursday, and Sunday. The Nisshin Kisen Kaisha (Japanese) vessels have five sailings a week each way.

Shanghai-Hongkong-Canton.—Sailings from Shanghai Sundays, Tuesdays, and Thursdays, by the China Navigation Co.'s steamers. The Indo-China Steam Navigation Co. and the China Merchants Steam Navigation Co. also maintain frequent sailings over the same route.

Shanghai-Newchwang-Dairen, via Chefoo.—Frequent sailings maintained by the China Navigation Co.

Shanghai-Tientsin.—The China Navigation Co. maintains regular sailings from Shanghai on Tuesdays, Saturdays, and alternate Thursdays. The Indo-China Steam Navigation Co.'s steamers leave Shanghai on Sundays and Thursdays. The China Merchants Steam Navigation Co. also maintains a service, which, however, is irregular. The Kailan Mining Administration also runs steamers on this line, their steamers leaving Shanghai every three or four days.

Shanghai-Tsingtau-Dairen.—The South Manchuria Railway Co. (Japanese) has sailings every Tuesday and Friday from Shanghai.

Shanghai-Ningpo.—The China Navigation Co., the Ningpo-Shaoshing Co. (Chinese), and other companies have regular sailings between Shanghai and Ningpo.

The war affected local lines considerably. Many steamers operated under the British flag were requisitioned by the British Government. Consequently, local shipping has been somewhat restricted, with freight rates considerably higher than before the war.

There are in this district four foreign express agencies that handle shipments. They are the American Express Co.; Thomas Cook & Sons (British); Schiller & Co. (British); and James Magill & Co. (British).

The following scale of charges is maintained by the Shanghai-Hongkew Wharf Co. (Ltd.), one of the oldest wharf companies in existance in Shanghai:

Vessels are received alongside the wharves and cargo received on the wharf staging or pontoons, stored and delivered on the wharf staging or pontoons at tariff rates, free of rent charge, if taken away within 10 days from date of berthing (the date of berthing counts as one day). Goods are delivered during customs working hours free of extra charge when delivery is effected from the same section in which it was landed. The rates of wharfage for vessels carrying mixed Chinese and Japanese merchandise are 30 candareens (normally about $0.20 gold) per foot. Vessels under 300 feet carrying coal are charged 65 taels, and vessels over 300 feet 0.35 tael per foot. Over-sea steamers other than those already mentioned are charged 0.65 tael per foot. Lorchas are charged 50 taels.

Vessels from foreign ports remaining at the wharf for more than five days will incur an extra charge of 50 taels for the first day and 75 taels for the second and every succeeding day or part thereof. Coasting vessels remaining at the wharf for more than three days incur an extra charge of 30 taels for the first day and 50 taels for the second and every succeeding day or part thereof. The Chinese Maritime Customs levy tonnage dues at the rate of 0.40 tael per registered ton for each quarter of the year.

FACILITIES FOR TRAVEL.

The facilities for travel in the Shanghai district have already been fully described in the discussions of railways and steamship lines. The best seasons to visit Shanghai are in the spring between April and June or in the fall between September and about the middle of December. There are plenty of first-class hotels in Shanghai, where every hotel convenience can be obtained at rates from $5 to $10 (Mex.) per day. Hotels are to be found at most of the treaty ports at prices approximating those charged in Shanghai. Bookings to every point, whether by rail or steamer, can be arranged through such agencies as Thomas Cook & Sons and all the railway and steamship offices. The hotels in Shanghai can arrange for house-boat trips to Soochow, Hangchow, and other places if the traveler cares to go along some of the many waterways of China. These trips are very popular in Shanghai, especially during the fall and early winter months. The native city of Shanghai also deserves a visit, and the curio hunter should find there many interesting and valuable articles. The Tu-shen-wei orphanage for boys at Sikawei, conducted by the Jesuit Fathers, is another place of interest. It was founded in 1847, destroyed by the Taiping rebels in 1860, and reestablished in 1864. Here hundreds of native children are received and learn handicrafts. There are studios of sculpture and painting. The printing works, which were started in 1873, possess collections of European type and Chinese mobile type. At Sikawei is also established the meteorological observatory, founded in 1871 and rebuilt in 1900. It is situated in latitude 31° 11′ north and longitude 120° east. From this observatory are given out the daily weather forecasts, which have been of great service to the marine community. There is also the Natural History Museum, begun in 1863, where a special study is made of the zoology of the Far East.

TRADE ORGANIZATIONS IN DISTRICT.

The Shanghai foreign trade organizations are: The Shanghai General Chamber of Commerce, a cosmopolitan organization composed of the foremost merchants of Shanghai; the American Chamber of Commerce of China; the British Chamber of Commerce of Shanghai; the French Chamber of Commerce of Shanghai; the Italian Chamber of Commerce; the Japanese Business Men's Association; the Deutsche Vereinigung (German Chamber of Commerce); the Engineering Society of China; the Foreign Silk Association of Shanghai; the Shanghai Cotton Anti-Adulteration Association; the China Tea Association; the Shanghai Fire Insurance Association; the Institute of Architects in China (Inc.); the Association of Foreign Bankers; the Shanghai Marine Underwriters' Association; the Exchange Brokers' Association; the Shanghai Stock Exchange; and the Shanghai Sharebrokers' Association.

The principal native associations are: The Chinese General Chamber of Commerce (the most influential chamber); the Chinese Merchants' Cooperative Association; the Chinese Sharebrokers' Association; and the Chinese Association of Foreign Goods Merchants.

The principal native guilds are: Tea merchants; timber merchants; paint and varnish merchants; bankers' exchange; Hangchow silk-piece-goods dealers; silk-piece-goods merchants; gold merchants; coal merchants; rice merchants; cotton dealers; timber importers; jewelers; leather-goods dealers; ginseng dealers; cotton-yarn dealers; Shantung pongee dealers; silk-filature proprietors; silk merchants; egg merchants; sugar merchants; pawnbrokers; ham dealers; Japanese piece-goods merchants; foreign general goods dealers; cotton-piece-goods merchants; silversmiths. In addition to those mentioned, there are guilds for practically all trades.

AMERICAN INTERESTS.

COMMERCIAL INTERESTS.

American business interests in Shanghai received a great impetus in 1915 by the formation of an American Chamber of Commerce. The aims of the chamber, as set forth by the president on the occasion of a banquet tendered to the American Minister at the Palace Hotel on July 3, 1916, are:

> To foster and protect the interests of American commerce; to collect information on matters of interest to the American mercantile community; to use every means in its power for the removal of evils, the redress of grievances, and to communicate with the proper authorities with respect thereto; to place before the proper authorities the requirements of American merchants for improved shipping facilities; to insure equal trading rights with all nationalities; and to obtain a Federal building of size and grandeur consistent with the greatest nation on earth, in which the American consulate general and judiciary may be well housed and in which the American Chamber of Commerce should be housed.

American business interests have expanded considerably, especially during the years 1916 and 1917. In 1916, for the first time, the United States transacted the largest volume of business with the port of Shanghai. In 1917 the combined import and export trade of the United States totaled $110,117,833 United States currency, as against $109,071,196 and $68,793,791, respectively, for Japan and Great Britain, the nearest competitors. In 1918 the American share was $97,145,554, as compared with $164,912,627 for Japan and $81,769,079 for Great Britain.

Several American firms have opened offices in Shanghai during the last three years, and, with adequate shipping facilities, there is every reason to believe that business with the United States will assume and maintain immense proportions in the future. American houses represented in Shanghai handle practically every line of goods bought or sold in China.

In the past British trade interests at this port were paramount, being closely followed by those of Japan, the proximity of Hongkong and Japan to this port having placed them in very favorable trade positions. Most of Shanghai's enterprises are registered under the Hongkong ordinances and, though the majority of the capital stock of a concern may not be British, companies are floated as British concerns, owing to the ease with which this may be done. Since the war, however, it has been stipulated by the British authorities that a British registered company must have a majority board of British directors and that the secretary of the company must also be British. It would appear that if the same facilities were afforded to American local enterprises in this respect by United States authorities, American trade interests would be greatly benefited thereby.

On the other hand, Americans enjoy the good will of the natives more than the citizens of other countries, and this is an asset that is worth conserving.

As indicated elsewhere, in connection with imports and exports, the European war has certainly benefited American trade. The cutting off of the supply of German and Austrian made goods and the curtailment of British trade have caused large orders to be placed in the United States, and it remains for the American manufacturer or exporter to retain this trade after the war. Lack of proper American shipping facilities curtailed this increase more than anything else.

Certain complaints have come to the notice of the Shanghai consulate general, and these should be remedied. Where orders are placed and are accepted by cable by houses in America, it should be borne in mind that the acceptance of the order binds the house in Shanghai, and that a repudiation of the order after it has been accepted places the Shanghai business firm in a very awkward position. Expensive legal proceedings are likely to result, to say nothing of the fact that it is very difficult for a firm that has once repudiated its orders to regain the confidence of the Chinese traders, who are the largest buyers of foreign products. Firms have been known to spend hundreds of dollars, losing all their products and suffering heavy losses besides, by purchasing goods elsewhere after their accepted orders have been repudiated by American exporters.

MISSIONARY INTERESTS.

Shanghai is the principal center of missionary work in China, and the American missionary interests represented there are: The American Church Mission; the Baptist Mission; the Methodist Mission; the Presbyterian Mission (North); the Seventh-Day Adventists; the Women's Union Missionary Society; the Shanghai Young Men's Christian Association; the Women's Christian Association of Shanghai; the American Bible Society; the Christian and Missionary Alliance; and a few smaller missions.

A splendid description of mission work in China was printed under the general heading of "What the Christian missions are doing in Shanghai" in the China Press, of Shanghai, under dates of November 26, 28, and 29, 1916.

It is estimated that American missionary interests in Shanghai are the largest in extent. Education is the principal line of work. The Chinese Young Men's Christian Association in Shanghai is the largest city organization in the Far East, and is under the direction of American Young Men's Christian Association secretaries.

The following further data concerning missionary, educational, and other work in China may be of interest:

The first American Protestant missionaries arrived in China in 1829 and the first girls' school was started in Ningpo in 1844. The first college was opened at Tungchow, Chihli, in the year 1860. There are no data at hand to show what educational work may have been done by Roman Catholic missions prior to the dates given.

The average number of pupils in mission schools during the 13 years from 1876 to 1889 was 11,377, or a total of 147,901; during the 16 years from 1889 to 1905 the average was 37,259, or a total of 576,144; during the 10 years from 1905 to 1915 the average was 115,328, or a total of 1,153,280. Allowing 4 years (a very liberal allowance) as the average period of study, it will be seen that about 469,331 persons have been taught in Protestant mission schools in China since the year 1876. Of these, approximately 92 per cent have been taught in the English language, and the remaining 8 per cent in the several Continental European languages. The data may be further summarized thus:

Years.	Number of pupils.	American.	British.	Continental.
		Per cent.	*Per cent.*	*Per cent.*
1876	5,917	52	37	11
1889	16,836	58	36	6
1905	57,683	50	42	8

This shows that during the three years listed the approximate percentage of those attending American mission institutions in China was 53⅓ per cent, of those attending British institutions in China 38⅓ per cent, and of those attending all other Continental European mission institutions in China 8⅓ per cent.

During the first 15 years of the present century about 37,500 students have passed through the mission high schools and 3,750 have continued their education in colleges. No figures are at hand for the 24 years prior to 1900.

Up to the year 1905 a very large percentage of foreign educational work was done by the mission schools. Since then the Government has instituted foreign studies in its schools, and the number of pupils now receiving foreign education in mission schools, although much larger in fact than in previous years, is but a small percentage of the total number of students receiving foreign instruction in China.

The latest figures available show that North America spent $18,793,991 gold for Protestant mission work in 1916, while all others—the various British and Continental European Protestant nations—spent in 1913 the sum of $13,884,411 gold, making a total of $32,678,402 for one year. (These figures are the latest available.) Of this total amount approximately 20 per cent, or $7,535,680 gold, was spent for mission work in China. Of the $7,535,680 spent in China in one year, North America spent approximately $3,758,798, or 49⅘ per cent.

The American Young Men's Christian Association has expended approximately $2,750,000 in China, about $1,000,000 of which represents buildings.

The total number of American foreign mission workers in the world in 1915 was 10,497, and of all other societies—of the various British and Continental European Protestant nations—14,173 in 1912, making a total of 24,660 workers. Of this total, about 22 per cent are in China, making 5,338 (of whom 2,309, or about 43 per cent, are American) Protestant mission workers in China.

St. John's University, under the American Church Missionary Society, with its St. John's College for boys and St. Mary's Hall for girls, is probably the largest missionary educational institution in China. The total value of its present plant is approximately $325,000 gold and $50,000 is appropriated annually for its upkeep. The total expenditure at St. John's since its beginning, including salaries, is more than $1,000,000.

The China agency of the American Bible Society distributed 12,982 Bibles, 62,951 testaments, and 2,198,777 portions, a total of 2,247,710 units, in the year 1916. This is an increase of 2,055,495 units over the total distribution made in 1893 by the American, British, and National Bible Societies. The figures for the year 1915 show that the American Bible Society distributes about 36 per cent of all the Bibles and testaments given out in China.

GENERAL TRADE SUGGESTIONS.

American manufacturers and exporters wishing to place their goods in Shanghai should form connections with an established firm in that port and, if possible, give such firm the sole agency for the sale of their products. Thus the importer is encouraged to push the particular line or brand.

Another plan that is generally followed by large British exporters is to send commercial travelers to canvass Shanghai and outports every year and, eventually, either to open a branch establishment in Shanghai, if the trade obtained seems to warrant, or to place an agency with a local firm, sending full lines of samples and new quotations every season. A liberal allowance of advertising matter and a special allowance for advertising in local newspapers will be of considerable help to both the importer and the manufacturer.

A commercial library is maintained at the Shanghai American consulate general, where, from time to time, Shanghai merchants and others come for information. Exporters and manufacturers would do well to send their catalogues to this office to be filed, as they will be made available to all inquirers.

TIENTSIN CONSULAR DISTRICT.

By Consul General P. Stewart Heintzleman.

LOCATION AND AREA.

The Tientsin consular district is in the northeastern part of China, and comprises the whole of the Provinces of Chihli and Shansi and that portion of the Provinces of Honan and Shantung north of the Yellow River, together with all of eastern Mongolia, including the Ordos country and the territory inhabited by the eastern and southern Khalkhas.

The total area of the district is more than 270,000 square miles, equal to the combined areas of the New England States, New York, New Jersey, Pennsylvania, Maryland, Virginia, West Virginia, and Ohio. The Province of Chihli, which is the most important politically, the capital of the Republic being situated therein, has an area of about 115,000 square miles, while that of the Province of Shansi is approximately 80,000 square miles. The area of that portion of the district in Honan and Shantung is estimated at about 20,000 square miles, while the area of the Ordos country, a sparsely settled grazing region, is about 55,000 square miles. The location of the district corresponds to that of the States of America mentioned above.

POPULATION.

Until a census is taken by the methods adopted in western countries, the population of the Provinces of this district can not even be estimated with any approach to accuracy. A rough count taken by the Ministry of the Interior in 1910 gives the population of the Province of Chihli as 32,571,000, or 283 inhabitants per square mile. Shansi is given a population of 10,000,000, so that the total for the district can be placed at approximately 40,000,000, or two-fifths of the population of the United States. Peking, the capital of the Republic, has a population of about 600,000, while Tientsin, the most important commercial center of North China, has a population of not less than 1,000,000. The portion of Chihli extending from Peking to the coast is a great plain, and is densely populated; likewise the section north of the Yellow River is extremely populous, while the district north of the Great Wall is partly mountainous and partly rolling and has but few inhabitants. Another densely populated area is the Shansi Plateau, about 125 miles long and 30 miles broad. It has but one large city, Taiyuanfu, the capital of Shansi, with a population of perhaps 200,000.

The estimated percentages of rural and urban populations in North China are 80 and 20 per cent respectively.

PHYSICAL FEATURES.

The eastern part of the Tientsin consular district—the region that is the most densely populated and of the greatest commercial importance—is a plain, practically at sea level, extending from the coast to the hilly and mountainous section about 100 miles inland. The soil of this plain is an alluvium deposited in the deltas of numerous rivers, the largest of which is the famous Hwang Ho, or Yellow River.

The mountain range that forms the western boundary of the Chihli plain extends from the northern part of Chihli and Shansi to the Yellow River basin. Practically the entire Province of Shansi, with the exception of the Taiyuan Plateau, is covered by this mountain range and its foothills. The mountains are from 3,000 to 12,000 feet in height, and all are practically treeless.

The northern part of the Tientsin consular district, eastern Mongolia, is a vast prairie traversed by numerous rivers. The inhabitants are of a roving type, and though it is a country wonderfully adapted for agricultural pursuits, the Mongols devote their energies to horse and cattle raising.

The Yellow River forms the western and southern boundaries of this district. It rises south of the Koko Nor, or Ching Hai Lake, and, after turning north from Lanchow, the capital of the Province of Kansu, takes a northeasterly direction, forming one of the boundaries of the Ordos country. It then flows southward for about 500 miles between Shensi and Shansi before entering the great plain and finally emptying into the Gulf of Chihli. In traversing this region whose soil is of yellow loess formation, its waters become colored; whence the name of the river. Its total length is about 2,700 miles, and being shallow it is of little use for navigation.

The Yellow River has changed its course several times in history, causing great destruction of life and property. The mud and sand carried down by its waters have raised the bed of the river, which is several yards above the level of the surrounding country. To prevent overflowing embankments have been built, which require constant enlargement. These embankments often exist in series, one placed behind the other, so that, if one gives way, another may prevent an inundation. Despite these efforts to keep the river in its natural course, floods occur frequently, and the banks and dykes, being weak and constructed with materials offering little resistance, require constant attention. Though improvements and reclamation work have been undertaken by the Government from time to time, these efforts have proved temporary and ineffective. In many cases dykes have been constructed in one section that have caused injury to other sections or rendered useless improvements made elsewhere along the river.

Numerous small rivers traverse the Chihli plain, and while they are of no great importance as waterways, they possess some value in that innumerable small native craft are enabled to ply certain parts of their courses.

The district is bounded on the east by the Gulf of Chihli, the coast line being about 350 miles long. There are a number of shoals along the coast, and navigation with Tientsin is dependent upon the channels made by the Peiho at Taku, about 47 miles below Tientsin.

CLIMATE.

The climate of this section of China is somewhat similar to that of the northeastern part of the United States. The winters are clear, dry, and sunny, with a minimum of snowfall, but extremely cold at times, while the summers are similar to those of the Atlantic seaboard of America. At times the temperature rises in summer to 100° F., while the daily variation may be as much as 30° F., and falls in winter to 50° F. below zero, but the atmosphere is so dry that the sensations rarely indicate such extremes. Violent dust storms occur in the early spring and late autumn. The months of June and July are the rainy season. The average yearly rainfall, including snow, for this part of China is about 30 inches.

POLITICAL SUBDIVISIONS.

The Tientsin consular district, as stated, is composed of two Provinces of China proper, Chihli and Shansi, portions of two other Provinces, Honan and Shantung, and part of Inner Mongolia.

Chihli and Shansi are each administered by a "Tu Chun," or military governor, and a "Sheng Chang," or civil governor. The former exercises military power throughout the Province, while the latter is the highest civil authority. Next to the governors the most important provincial officials are the treasurer, commissioner of foreign affairs, commissioner of education, commissioner of industry, and officials of the provincial high court.

The Provinces are divided into districts. The district, or hsien, is the administrative unit. In each district there is a magistrate who controls the affairs thereof. He also presides over a court of first instance which deals with minor criminal and civil cases.

The capital, Peking, constitutes the "metropolitan district," which, though situated in the Province of Chihli, is quite independent of the provincial government. The governor of the metropolitan district has the same relation to the subordinate officials under him as the governor of the province has to the financial, educational, judicial, and other officials of the Province.

The commissioner of foreign affairs is an important Chinese official in that his duties have to do with foreign interests. He is stationed at each of the provincial capitals and the leading treaty ports. He is the special delegate of the Foreign Office at Peking, and a primary function is to facilitate the transaction of business with the foreign consuls. In cases where a foreigner desires to bring an action against a native, it is necessary that the consul of the plaintiff's nationality communicate to the commissioner of foreign affairs the charge, when the latter will in turn transmit it to the official directly concerned or to the proper court. Foreigners are not permitted to correspond directly with the Chinese officials, and it is necessary that the correspondence follow the procedure just indicated.

The police force in Chihli is fairly efficient, and its institution along reformed lines in recent years has wrought an improvement in the social life of the Province in general and Tientsin in particular. The police administration of Tientsin is praiseworthy, being under the control of a man of unusual ability and long experience in these matters. The men form a fine, upstanding, well-drilled body, and at the various substations undergo at least one hour's rigorous drilling every day. Each foreign concession has its own police department, usually consisting of a foreign chief of police and about 200 natives serving under him. The police, both in the native city of Tientsin and in the foreign concessions, are not patrols with a certain district to supervise, but for the most part are traffic policemen, each with his fixed post at the crossing of two streets, where he regulates the traffic of pedestrians, jinrikishas, carts, automobiles, etc. Besides these duties, matters relating to public health and fire prevention are controlled by the police. They attend to the sweeping, watering, and lighting of the main roads, and it is constantly remarked that these duties are well performed. In Peking a committee composed of representatives of the various foreign diplomatic missions administers the Legation Quarter.

EDUCATION.

GOVERNMENTAL POLICIES AND UNDERTAKINGS.

Educational reforms were inaugurated in 1905, up to which time inadequate funds and the absence of a fixed policy operated against the successful establishment of Government schools. It was in the autumn of that year, after the issuance of an imperial edict on the subject, that the question of public education in Chihli was taken in hand by the then Viceroy Yuan Shih Kai. Many schools and colleges, chiefly elementary and middle, and normal and elementary girls' schools, were established. Under Viceroy Yang Shih Hsiang educational work was continued and extended. Candidates for official employment were required, in addition to possessing a knowledge of the ancient classics, to have some acquaintance with the modern science of government. Many young men went to Japan, America, and Europe to be educated. The antiquated schoolmaster was dismissed. A vast educational scheme, embodying the new aims and methods, was framed by the Government. Primary schools, as well as high schools and training colleges for men and women, were established. Schools of law, science, agriculture, industry, mining, surveying, and languages were founded. An educational tax was imposed on the people. Temples were cleared of their contents and converted into seats of learning. New school buildings were erected. Expert teachers from America, Europe, and Japan were engaged. To encourage students to enter the schools, education, board, and lodging were given at a nominal charge. In Tientsin the Government opened a "depot of maps and books," in which textbooks, classified according to subject, were arranged for inspection and sold at prices lower than those in publishers' lists. Elementary schools were opened throughout the Province, and a middle school was started in each large city. In former days no provision was made to give Chinese women an education. In recent years that condition has been substantially altered. A girls' normal school was opened in Tientsin in 1911. Primary education steadily improves.

The subjects taught cover a wide field, embracing morals, Chinese literature, history, geography, mathematics, natural history, geology, physiology, political science, psychology, criminal law, civil law, constitutional law, international law, etc. While educational facilities have been greatly extended during the last decade, yet under present conditions it is difficult to obtain reliable information concerning the amount, scope, and value of educational work on the new lines. The total expenditure on education in 1917 for the whole of Chihli Province was $3,432,284. In Chihli education and culture are, on the whole, in advance of the standard prevailing in the other Provinces.

EDUCATIONAL ACTIVITIES OF MISSIONARY SOCIETIES.

The activity of missionary societies in the educational field is a potent and efficient factor in the progressive movement in the Tientsin district. In no part of China have these societies made more rapid progress. The people, bred in habits of self-support, have now come to take a large share in the work of maintenance and expansion. The American Presbyterian, the Methodist, the Congregational, and the Canadian Presbyterian Missions, the London Mission and the Church of England Mission, the Young Men's Christian Association, and the Catholic missions are the strongest in this district, both numerically and financially. This is, however, not a complete list of the many different missions active along educational lines in this district. The work of the missionaries is greatly appreciated by the Chinese, and many of the congregations support their own native pastors. Christian literature is provided and distributed through the medium of three different Bible societies—the British and Foreign Bible Society, the American Bible Society, and the National Bible Society of Scotland. Each mission center conducts a primary school, many maintain high schools, and all hold classes to assist the students to reach that standard required by the entrance examination of the institutions for higher learning, such as the Anglo-Chinese College, Tientsin, the North China Union College, Tungchow, and the Peking University, Peking. The last two universities have been recently amalgamated as the Peking University under an interdenominational board of managers which unites nearly all the mission societies in their educational work. The subjects taught embrace Bible study, mathematics, physics, biology, chemistry, science of teaching, philosophy, history, geography, and English. The North China Union Women's College at Peking, under missionary auspices, is one of the two institutions for higher learning for women in China. And in the Province of Chihli each of the large missions maintains, on an average, 10 boys' middle schools, 140 boys' primary schools, 8 girls' middle schools, and 75 girls' primary schools. In these mission schools the students pay a smaller fee and obtain admission somewhat more easily than in the native schools.

This foreign educational activity means much for the progress of this district. The educational classes are constantly increasing in number. Though the percentage of illiterates may be as high as 90, the Government is doing much to improve this condition by building new schools and placing modern equipment therein. The estimated expenditure for modern school supplies in this district is $70,000 per annum.

HOSPITALS.

There are a number of large, well-equipped, and up-to-date hospitals, both native and foreign, in Peking and Tientsin. Native hospitals are also to be found in the large towns in the interior, while medical missionary work is being carried on extensively in all the centers as well as in the larger outlying stations. The foreign nonmissionary hospitals are few in number and confined to Peking and Tientsin, with the exception of the hospital at Tangshan maintained by the Kailan Mining Administration. Well-equipped women's hospitals in charge of woman doctors are conducted by the various missions in the important towns. At all the hospitals in the district every sort of skilled attention is given to all applicants at a particularly low charge. This applies as well to the Chinese hospitals under the direction of foreign-trained doctors, where much useful work is being performed.

The large missions have established medical schools for the training of Chinese doctors and pharmacists at Peking and Tientsin. The activities of the Rockefeller Foundation in this district call for special comment. The Foundation, with the object of developing the science and practice of medicine in China, formed in 1915 the China Medical Board as its agency for conducting this work. In the same year the board acquired the property of the Union Medical College, including the hospital connected therewith, in Peking. This medical college, established in 1906, was maintained and directed by six missionary societies—the American Board of Commissioners for Foreign Missions (Congregational), the Board of Foreign Missions of the (American) Methodist Episcopal Church, the Board of Foreign Missions of the Presbyterian Church in the United States of America, the London Missionary Society (nonsectarian, but closely affiliated with the Congregational Churches of Great Britain), the Society for the Propagation of the Gospel in Foreign Parts (Church of England), and the London Medical Association. The China Medical Board has since purchased additional property adjoining the college and hospital, which are being enlarged and newly equipped. The board is also engaged in aiding a number of missionary medical schools and hospitals by providing equipment and other facilities and by making annual grants for the support of physicians and nurses selected by the mission boards. Further, the China Medical Board has created a number of fellowships in the United States for graduates of Chinese medical colleges, and a number of scholarships for Chinese graduate nurses and pharmacists. In addition, the board has granted fellowships to a number of medical missionaries in order that they may pursue graduate work while on furlough.

Modern hospital equipment is in general use in the institutions throughout the district, and the value of new hospital supplies imported yearly is estimated at $50,000.

LIST OF INSTITUTIONS.

A list of native colleges, schools, and hospitals, as well as of similar institutions under missionary auspices, in the Tientsin consular district follows:

NATIVE COLLEGES AND SCHOOLS.

Paotingfu:
  Chihli Provincial Normal College.
  Government Middle Schools.
  Government Agricultural School.
  Government Veterinary College.
  Military University.
Peking:
  College of Law and Politics.
  Customs College.
  Government University.
  Ming Te College.
  Peking Normal College.
  Tsinghua College.
Tangshan:
  Tangshan Engineering College.

Tientsin:
- Army Peiyang Medical College.
- Chihli Higher Technical School.
- Fishery School.
- Government Middle School.
- Higher Industrial College.
- Nankai Middle School.
- Naval Middle School.
- Navy Medical College.
- Peiyang University.
- Peiyang Women's Normal College.
- Telegraph School.

NATIVE HOSPITALS.

Paotingfu:
- Wei Sheng Hospital.

Peking:
- Central Hospital.
- Isolation Hospital.

Tientsin:
- Peiyang Hospital.
- Peiyang Women's Hospital and Dispensary.

MISSIONARY COLLEGES AND SCHOOLS.

Peking:
- Bridgeman Academy for Girls (American).
- Chung Teh Hsueh Hsiao.
- Collège Français (French).
- École du Sacre-Coeur.
- École St. Michel.
- Hill Murray School for Chinese Blind.
- Mary Porter Gamewell School
- North China Union Women's College (American).
- Pei Hua Hsueh Hsiao.
- Peking Academy.
- Peking Union Medical College (American).
- Peking University (American).
- Soeurs de Charité.
- Truth Hall.
- Tsui Ying Hsueh Hsiao.
- Women's Medical College (American).
- Young Men's Christian Association School.
- Young Women's Christian Association School.
- Yu Ying Hsueh Hsiao.

Tientsin:
- École Municipal Français.
- Marist Brothers College.
- St. Joseph's High School.
- Tientsin Anglo-Chinese College.
- Tientsin Intermediate School for Chinese Boys.
- Young Men's Christian Association School.
- Young Women's Christian Association School.

MISSIONARY HOSPITALS.

Changli:
- Northern Methodist Board Hospital.

Fenchowfu:
- Fenchowfu Hospital.

Linchingchow:
- Elizabeth Memorial Hospital.

Paotingfu:
- Taylor Memorial Hospital.

Peking:
- Douw Hospital (American).
- Hopkins Memorial Hospital.
- Hospital St. Michel.
- Italian Hospital for Chinese.
- Peking Union Medical College Hospital (American).
- Sleeper Davis Memorial Hospital.
- St. Luke's Hospital.

Shuntehfu:
  Grace Talcott Hospital.
  Hugh O'Neil Memorial Hospital.
Techow:
  Williams Porter Hospital.
Tientsin:
  Chiaki Hospital.
  General International Hospital.
  Hospital St. Vincent for Chinese.
  Isabella Fisher Hospital.
  Laoling Hospital.
  London Mission Hospital.

FOREIGN NONMISSIONARY HOSPITALS.

Peking:
  Deutsches Marine Lazarett und Hospital für Privatkranke.
  Dojin Hospital.
Tangshan:
  Kailan Mining Administration Hospital.
Tientsin:
  Inouye Hospital.
  Isolation Hospital.
  Queen Victoria Diamond Jubilee Memorial Hospital.

AGRICULTURE.

North China is essentially an agricultural region, and practically the entire area of the Tientsin consular district is developed agriculturally. In the Chihli plain the land is cultivable and divided into small fields, in which farming is carried on in an intensive manner. Meadow land and pasture crops exist, and live stock are reared not only as beasts of burden but also for meat products. The farming implements in general use are the plow, the harrow, and a sort of cultivator, all of which are of primitive native manufacture. The method of tillage is very crude. In spring the farmer shovels up, with his primitive plow, 5 or 6 inches of earth into a ridge; on this he drops the seed and then rolls the ridge.

Cotton and wheat are the most important of the crops and, along with wool, hides, and skins, supply the means of purchasing foreign goods. Kaoliang and millet are grown for home consumption; the former supplies food for man and beast and is used for fuel and thatching. Other products of importance are beans, peanuts, hemp, straw braid, barley, upland rice, tobacco, and maize (of which a poor quality is especially cultivated, though it is the staple food). Wheat and barley are sown at the end of autumn or early spring and harvested in summer. Millet, kaoliang, beans, maize, cotton, peanuts, etc., are sown in spring and harvested in autumn. In growing wheat, kaoliang, and cotton, three crops can ordinarily be produced in every two years.

Horses, mules, donkeys, and oxen are the farm animals, and in order to utilize the surplus corn and bran, other domestic animals, such as cattle, sheep, goats, pigs, and fowls. are raised. The camel is also used as a beast of burden.

PREVAILING METHODS—DIFFICULTY OF CHANGE.

The present methods of agriculture deprive the soil of humus. There is no crop rotation. This condition is aggravated by the continual raking away of the stubble for fuel, thus depriving the soil of organic matter, while the scarcity of animals makes the price of manure prohibitive. The use of night soil, procured in the cities and carried to the farming districts, is the only method adopted for keeping the soil productive. These statements are proved by the conditions in any part of Chihli; the yields of kaoliang and millet have decreased within the memory of man, the soil is noticeably depleted of humus, and manure is dear. The difficulty of change in the methods of agriculture will remain, even when the problems of transport, flood prevention, etc., have been solved. The necessary changes may be summarized as follows:

(*a*) Rotation of crops should be introduced, so that nitrogen-consuming crops may be succeeded by nitrogen-producing crops; and deep and shallow crops should alternate.

(*b*) Animal husbandry should exist; pigs, sheep, cattle, and horses should be bred, in order that they may consume the grass crops of the farms and the by-products of the crops.

(*c*) There should be improved methods of tillage; this involves the supersession of the inadequate native instruments by modern ones.

(*d*) Afforestation is imperative, in order to check soil erosion, wind driftage, and the silting up of navigable rivers.

Before these objects can be attained modern methods will have to be adopted, and these can come only with the complete education of the people. This is a task of great difficulty in China, since modern agricultural education presupposes a prior elementary education which not one farmer in ten thousand possesses.

INSTITUTIONS FOR PROMOTION OF AGRICULTURE.

During the last decade and a half the provincial government has expended a considerable amount of money in establishing institutions to foster agriculture and forestry in Chihli. Agricultural experiment stations, agricultural schools, forest-tree and fruit nurseries, and subordinate experiment farms were organized. Owing to various causes, these are now either closed or suspended. In 1904 the General Bureau of Agriculture was instituted at Paotingfu. Later, the Higher Agricultural School, from which 60 students have graduated, was also established there. To this school there is attached an Institute of Forestry, from which 200 students have graduated in forestry and sericulture. These graduates have been sent to all parts of the Province to promote interest in, and knowledge of, these subjects. An experiment station, in conjunction with the Institute of Forestry, contains sections for sericulture, horticulture, forestry, and industrial arts, in which practical training on modern lines is given. In Tientsin the Peiyang Government Nursery, subsequently termed the Tientsin Agricultural Experimental Station, has been established. It possesses about 250 acres, is well equipped with buildings for farm work, and has classrooms and dormitories for 60 students. It was also well stocked with foreign cattle, sheep, and swine. It suffered much from having no one plan of management. From this institution sprang the Cotton-growing Improvement Society, which, experimenting with long-stapled cotton, has done much to improve the production of cotton in the Province. The General Bureau of Agriculture has laid out a nursery at Tsinghaihsien, where 9,000 Japanese mulberry trees were planted, from which 3,000,000 young plants have been raised. Agricultural experimental stations have also been established throughout the Province.

FRUITS AND VEGETABLES GROWN.

Practically all the fruits common to the north temperate zone are to be found in this district, among others the peach, pear, apricot, apple, plum, grape, jujube, and persimmon. Other valuable products grown there are walnuts and chestnuts. The best fruit of the district comes from the Changli Hills in eastern Chihli near the gulf coast. The Changli pear is particularly prized for its good taste. Many of these fruits are exported, large quantities being sent away every year by steamer or by junks to various places along the coast. Also, American missionaries have successfully transplanted in the district American apples, pears, peaches, cherries, plums, grapes, strawberries, raspberries, and blackberries.

The ordinary garden vegetables are raised in abundance. The most important is the cabbage. Next in importance come onions, turnips, carrots, potatoes, sweet potatoes, egg plants, garlic, leeks, spinach, and peas. Many varieties of gourds, cucumbers, and melons are also cultivated. The asparagus plant is common in a wild state. The climate and soil are admirably adapted for the cultivation of foreign vegetables and flowers, and these may be grown throughout the warm season.

Forests of pines and oaks occur in the north of the district, but as a rule the mountains contain only here and there small woods, composed for the most part of low pines. On the plain along the streams, and in the vicinity of villages, clumps of pines, willows, poplars, and elms are common. The acacia does well in sheltered spots.

METHOD OF HANDLING PRODUCTS FROM THE INTERIOR.

The market in the interior for the staple agricultural products is practically in the hands of a few wholesale dealers, who bring all that reaches this market from the interior and then sell to foreign merchants. They dispatch agents to the places of production to arrange for the purchase, shipment, and disposal of the produce. Contracts are sometimes made on the basis of one-third of the purchase price being deposited, but usually business is transacted on a cash basis, the cargo being delivered after seven or eight days from the date of the order, and payment being effected after weighing. A commission of 2 per cent is given to these agents by the wholesale dealers. Such monopolies can not but be detrimental to producers and foreign merchants alike, and there is a desire among growers to enter into direct transactions with the foreign buyers. By the increased use of outward transit passes ("sanlientan") for the purchase of goods in the interior, foreign merchants are enabled to deal directly with the producers, so that the practice of buying through a select set of merchants is not as general as it was formerly.

DESTINATION OF PRINCIPAL ARTICLES.

Large quantities of sheep's and camels' wool, goat and sheep skins, and cow and horse hides are exported abroad, mainly to the United States and Europe. Raw cotton is shipped to Japan, Shanghai (for transshipment abroad), America, and Hongkong. Eggs, beef, and poultry are sent to Russia, while walnuts, peanuts, seeds, hemp and jute fibers, and straw braid go to America, Great Britain, and France. Bristles and sheep and pig intestines also enter into the export trade. They are destined principally for the United States and Europe.

MINERALS AND MINING.

The latent mineral resources of this district are believed to be considerable, but, with the exception of a few foreign and joint foreign and native enterprises, no serious attempts have been made to develop them. Chihli is rich in mineral products. According to a report of the chief engineer of the Mining Bureau, the mineral area of the Province may be divided into two parts—inside and outside the Great Wall. Of the minerals produced outside the Wall the most important is gold, which is found in veins and as detrital deposits. The best gold of the former description is mined in many places in the Kienping and Lwanping districts of Chaoyangfu, and that of the latter description is found in Pingchuanchow. Silver mines are in Fengninghsien and Pingchuanchow. Copper and lead are also found in the latter place. Iron is mined at Taokow, near Kaoszetai. Miaoerling, on the Luanho, produces the best bituminous coal, and Tungyuanpaoshan, in Chihfengchow, is noted for its anthracite. Within the Wall the most notable gold mine is at Tsienanhsien, in Tsunhwachow. Silver is mined in Maoerhkow, copper and lead in Linyuhsien, in the same district, and zinc in Chinghsing, at a place 7 miles distant from the colliery. The principal iron mine is in the north of Fengjunhsien.

Anthracite coal is worked at Sining, Weichow, Kimingshan, and Mentowkow. The Kaiping and Lanchow collieries are the most important mines from which bituminous coal is produced, and Chinghsing, Lincheng, Tzechow, Simentsai, and Lingshan are places noted for the production of coal of the same class. The Chinghsing colliery is worked by a joint company of Chinese and Germans, and produces from 500 to 600 tons of anthracite coal per day. Since China entered the war this company has been nominally under Chinese control. The Lincheng coal mine is also under joint management, Chinese and Belgian, and from both old and new pits about 300 tons of coal are extracted daily. The Kailan Mining Administration, which is an amalgamation of the Chinese Engineering and Mining Co. (Ltd.), a British firm, and the Lanchow Mining Co., a native concern, is the premier mining enterprise in China. The administration is under British control and management. It has a capital of £2,000,000, with a further sum of £1,200,000 in 6 per cent debentures. The concession lies in the Kaiping district, Chihli, and has an area of 95 square miles. The mines are served by the Peking-Mukden Railway, and are 81 miles from Tientsin and 89 miles from the port of Chinwangtao. The export of Kailin coal through Chinwangtao amounted to 1,442,465 tons in 1917. The amount shipped to foreign countries aggregated 700,000 tons (over half of which went to Japan and the remainder chiefly to Hongkong, the Philippine Islands, and Chosen), while 568,000 tons were sent to Shanghai and the remainder to 17 other Chinese ports. The administration has introduced all the latest methods for loading coal into its ships in the harbor. Berthing can take place at night, so that work can start at once. There is accommodation for some 3,000 coolies, and coal can be loaded at a rate of more than 12,000 tons in 24 hours. Chinwangtao now ranks as the premier port in the Orient for the shipment of coal, its export being larger than that of any port in Japan and equal to three times that of Hungay, in

Tongking. The total sales of coal mined by this company for the year ended June 30, 1918, amounted to 2,766,873 tons. The daily output averages 14,500 tons. The administration also manufactures fire bricks. The factory, which is located at Tangshan, is equipped with milling and other machinery of the most modern design. The present output is between 40,000 and 50,000 tons per annum, which amount could, if necessary, be increased to 100,000 tons per annum without any extension to the milling machinery.

There are a number of mines worked jointly by the Government and the people, of which the most important are those of the Tzechow Coal Mining Co. in Tzechow and the Fengkiakow gold mine in Miyunhsien; and there are also many mines worked by the people in a primitive way and on a small scale.

Shansi is considered to be the richest Province in coal, the coal-bearing area of one district alone comprising, it is said, 690 square miles. While the coal exists in abundance, another advantage is afforded in the ease and cheapness with which it can be extracted on a large scale. There are several mines where the finest lump anthracite, apparently equal to the best Pennsylvania, is sold at the pit head at 25 cents per ton. Gold, silver, lead, sulphur, gypsum, agate, iron, copper, and petroleum are also found in Shansi.

Other mines in this district, either under Chinese control or under joint Chinese and foreign control, are the To Li coal mine, 15 miles southwest of Peking, under Chinese control; the Tung Hsing and Yu Mao coal mines, both at Mentowkow, under Sino-British control; the Pao Chin coal mine, at Pingtingchow, eastern Shansi, on the Changting-Taiyuan Railway, under Chinese control; and the Liu Ho Kow mine, near Chengtehfu, Honan, under Chinese control.

The Pekin Syndicate concession at Chiaotso, Honan, was formerly under the sole control of British capitalists, but recently Chinese have been included, and upon amalgamation with the Chung Yuan Co., in June, 1915, the name was changed to the Fu Chung Corporation. The corporation has a nominal capital of $1,000,000, subscribed equally by the syndicate and the company, which are also represented equally on the board of management. The present sales of this concern amount to more than 1,200,000 tons per annum.

In all of these mines foreign methods have been adopted, and the machinery and plant used have been imported from Europe and America.

The output of coal in this district is estimated at about 25,000 tons per day; it is consumed locally, distributed to neighboring districts and other ports of China, or else shipped to other countries in the Orient.

A grant of the exploitation of the oil resources of Shansi and Chihli had been made to the Standard Oil Co. of New York by the Chinese Government, but the project was discontinued after trial operations had shown that oil did not exist in marketable quantities.

The Chinese Government, realizing that Chinese capital is inadequate to develop the mineral resources, invites foreign capitalists to share in such development. However, the mining regulations drawn up by the Government discourage rather than encourage foreign investors, inasmuch as they contain, among others, restrictive provisions to the effect that mining concessions can not be granted solely to foreigners, that foreigners can not hold an amount in excess of 40 per cent of the total capital invested in any enterprise and that a foreigner engaged in mining must, so far as the particular project is concerned, submit to Chinese jurisdiction. Applications for mining permits are made to the local bureau of mining affairs, at present a part of the provincial treasury. The sanction of the Ministries of Finance and of Agriculture and Commerce is necessary to the granting of a permit.

The mines under Chinese control are being operated under permits, for which a fee of 50 taels is charged. There is an additional charge of 0.60 tael a mile to cover traveling expenses of the deputy dispatched from Tientsin to inspect and to ascertain whether there are objections on the part of the people of the locality to the granting of permission to commence operations. The mines worked by Chinese companies seldom have a capital exceeding 10,000 taels; modern machinery is not employed, and the methods are very primitive.

Wolfram, some of it showing an assay test as high as 61.74 per cent, has recently been discovered in the northeastern part of Chihli Province, in the vicinity of Tangshan. It is reported that the area is rather large and extends from Chienanhsien to Funing and beyond. The central Government has assumed control of the mining operations, and the Ministry of War has established a bureau of administration at Lanchow, which plans to start a large refinery there in the near future. Up to the present time the greater portion of the wolfram mined has been used by the Government arsenals, and permission to work the mineral deposits is granted to Chinese only. Recently, however, several small shipments have been sent to America and to Japan.

COMMUNICATIONS: GENERAL INTRODUCTION.

The territory comprised in this district is, compared with most sections of China, fortunate in its transportation facilities, as regards railways, waterways, and roads. Practically every city of importance in the district is located either on a river or a railway, or both. The highways, while out of repair, are old trade routes and the traffic over them is still of great value. Likewise, the waterways serve a useful purpose in affording a means for bringing the products of the hinterland to the sea or to the railways, and for carrying foreign goods into the interior. But it is the increased facilities for railway transport that have contributed most to the improvement in the trade of this district. Goods that formerly had to be carried all the way to Tientsin by canal, cart, or boat, with the innumerable delays and probability of damage or loss inseparable from such means of conveyance, are now carried by the old methods only as far as the railway station nearest to the locality of their origin, and thence are forwarded by train to Tientsin, saving many days and with greatly reduced risks. That the railways have absorbed the greater proportion of the trade, to the detriment of the waterways, which have declined in exact ratio as traffic by rail has increased, is shown by the following percentages of rail, water, and land borne goods: Railways, 68 per cent; waterways, 28 per cent; and land routes, 4 per cent.

The Provinces that are generally considered to be the commercial sphere of Tientsin are Chihli and Shansi, parts of Shantung, Honan, Shensi, and Kansu, comprising an area of 522,260 square miles, in addition to Mongolia, which brings the total up to 1,890,000 square miles, containing a population estimated at 122,000,000. Some deduction from this commercial sphere must be allowed for contributions drawn by Yangtze ports.

WATERWAYS.

None of the rivers, except the Haiho from the sea to Tientsin, is navigable for ocean-going vessels, but all the streams are of some importance in affording distribution facilities for the trade of the district. However, the waterways of the district generally are in a deplorable condition. With the sole exception of the lower reaches of the Haiho, they have been allowed to lapse into such a condition that the deepening of the canals and rivers by the process of building dams has at times to be resorted to in order to obtain sufficient water for the junks detained at certain points to pass the more shallow places; and this work has to be done by the junk people themselves.

Four rivers, Yunliangho, Putoho, Hunho, and Peiho, draining the larger part of Chihli and part of Shansi, join above Tientsin to form the Haihö. On these rivers or their branches are situated the important cities of Tientsin, Peking, Paotingfu, Chengtingfu, and Hsuanhwafu. Chengtehfu (Jehol) is on the Luanho, which drains northern Chihli. An important waterway is the Grand Canal, extending from Tientsin to Hangchow in Chekiang Province. The Grand Canal, which joins the Peiho at Tientsin under the name of Yüho, is in reality nothing but a continuation of the Wei River, from which it derives practically all its water, traffic, and importance as a trade route. Beyond Lintsing, where it is joined by the Wei River, the Grand Canal is dry and useless, but this condition does not affect Tientsin trade to any material extent. It is important to note that the Wei River connects Tientsin in almost a straight line with the heart of Honan Province and with the southeastern boundary of the mineral and coal fields of Shansi.

And because of the fact that water-borne trade in heavy and bulky goods is usually able to hold its own against railway competition, serious attention should be given to the most important of Tientsin's natural inland communications, especially as there is a gradual deterioration in the value of the Wei River—Grand Canal—as a trade route. Ten years ago boats of 80 tons capacity could make sure of reaching Taokow, 550 miles from Tientsin, in proper season. At present only boats of 20 to 30 tons can do so, and then only during four or five months of the year. At other times repeated transshipments must take place. Formerly the fleet of Honan boats were known to make 3,000 trips a year. In 1905 this number dropped to below 2,000, and continued to decrease until, in recent years, the number further dwindled to 1,500 or 1,600. These boats bring various produce, including important Tientsin export staples. Salt is the principal article of return freight; even that article is also partly sent to Honan by rail. The main cause of the deterioration of this waterway is silt. The Yüho is subject to a freshet every year during the summer months, when it brings down the reddish Honan soil of loess origin. Another source of trouble is the sand blown into it; and there should be no great difficulty in coping with these adverse influences. An American engineering concern has the contract for draining a portion of this canal with a view to improving its navigability.

Transportation by water is very cheap but at the same time very slow, so that the railways carry most of the trade of the districts they touch. Bulky goods of nonperishable character, however, continue to be transported by water. All goods, foreign and native, on the interior waterways, even though covered by a transit pass, are subject to internal taxes, likin charges being levied at the numerous barriers en route and at the point of destination.

RAILWAYS.

Railways constitute the leading means of communication in this district. There are six distinct lines, which with their connections touch nearly every city of importance. They are known as the Government Railways of North China, and are directly under the Ministry of Communications at Peking. The various lines are the Ching-Feng, or Peking-Mukden, Railway; the Ching-Han, or Peking-Hankow, Railway; the Cheng-Tai, or Shansi, Railway; the Tao-Ching, or Peking Syndicate, Railway; the Ching-Sui, or Peking-Suiyuan, Railway; and the Chin-Pu, or Tientsin-Pukow, Railway. Of these, only the Peking-Mukden and the Tientsin-Pukow lines come to Tientsin, and it is only by direct or indirect connections with these two railways that the others become contributors to Tientsin trade.

PEKING-MUKDEN RAILWAY.

The Peking-Mukden line enters the district at Shanhaikwan and runs to Peking via Chinwangtao, Taku, and Tientsin. One of the original sections of the railway extended between Tientsin and Peking; this section was opened in 1897 and double tracked in the following year. The portion of the line between Tientsin and Newchwang was constructed by British capital under a loan agreement concluded October 10, 1898, between the Chinese Government and the British & Chinese Corporation. This corporation is a syndicate formed by the Hongkong & Shanghai Banking Corporation and the firm of Jardine, Matheson & Co. for promoting British interests in China. The main line was completed in 1903 and has a mileage of 522 miles, with one branch in this district, namely, from Peking to Tungchow, 12 miles. This line, which is the most important of the Chinese-owned railways, has been very prosperous and demonstrates the remarkable earning capacity of railways in this region. The Government devoted part of the earnings of this line to the building of a trunk extension, the Peking-Kalgan Railway, the construction of which began in October, 1905, and the opening of which took place in September, 1909, with a mileage of 124 miles. This line was later extended to Suiyuancheng, in northwestern Shansi, via Tatungfu, 220 miles, and was opened in September, 1915.

The Peking-Mukden line makes connection at Lukowkiao, 4 miles from Peking, with the Peking-Hankow Railway for Hankow and Yangtze ports as well as intermediate points reached by the Cheng-Tai and Tao-Ching lines. Connection is made at Fengtai with the Peking-Suiyuan line. At Tientsin a junction is effected with the Tientsin-Pukow line for Tsinanfu, Nanking, and Shanghai. The

Peking-Mukden line connects at Mukden and Newchwang with the South Manchuria Railway, which is in turn linked with the Trans-Siberian route and the Imperial Japanese Government Railways. Owing to the suspension of the express train service between Europe and the Orient, the express trains on this line have been discontinued.

The head office of the Peking-Mukden Railway is at Tientsin. The telegraphic address is "Kinfeng, Tientsin."

During the year 1918 the total net revenue of the Peking-Mukden line was $13,950,384 Mex., an increase of $3,483,710 Mex.[1] over the figures for the previous year.

To replace rolling stock and to provide extra equipment for future business, the Peking-Mukden line has contracted with American firms for the supply of 14 locomotives and 500 cars of 40 tons capacity delivery of which is expected during the summer of 1919. These 14 locomotives, as well as 4 others ordered for the Lunghai line (the northwestern trunk system connecting Ili with the sea) are of the Mikado type and of Continental design, to meet the requirements of European engineers employed on these railways.

[Other orders for American locomotives placed during 1918 are: Tientsin-Pukow line, 10 of the Mikado type; Peking-Suiyuan line, 5 of the Mikado type and 3 Mallets; Taokow-Chinghua, or Honan, line, 2 of the Mogul type; Shantung Railway (Tsingtau to Tsinan), 9 consolidation locomotives; Lincheng coal mines, 1 locomotive of the industrial type. The 30 locomotives last mentioned are of strictly American design. An American concern dealing in structural steel products has recently obtained, through its China agency, an order from the Peking-Hankow line for 80 bridges, and from the Peking-Suiyuan line for 5,000 tons of rails.]

PEKING-HANKOW RAILWAY.

The Peking-Hankow Railway was constructed by a Franco-Belgian syndicate under a series of loan and operating contracts signed in 1897 and 1898. In this syndicate the Belgian share was 40 per cent. While nominally the railway was a Belgian concession, actually French interests dominated the line. Moreover, Russians participated in the project, the Russo-Chinese Bank having charge of all financial arrangements. The loan was redeemed in 1908, and the line reverted to Chinese control on January 1, 1909. The line was formally opened in November, 1905, when the first train crossed the Yellow River bridge. The length of the line is 755 miles, with the following branches in the Tientsin consular district: Liangsiang-Tuli (to coal mines), 12 miles; Liuliho-Chowkweichwang (to coal mines), 10 miles; Kaoyihsien-Lincheng (to coal mines), 10 miles; Paotingfu branch, 3 miles; and Kaopeitien-Hsiling, 26 miles. The Hsiling road, 79 miles from Peking, establishes communication with the western Imperial Tombs; its construction was completed in 1904, and its cost was about $600,000. The Tungkow Railway is a special line for mining purposes, which runs for a distance of about 90 miles; its cost of construction was about $3,000,000.

The Peking-Hankow line connects with the Cheng-Tai line at Shihchiachwang, and with the Tao-Ching line at Sinsianghsien.

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[1] See footnote on p. 84.

The important cities of this district located thereon are Peking, Paotingfu, and Chengtingfu.

The head office of this line is at Peking. The telegraphic address is "Kinhan, Peking."

CHENG-TAI, OR SHANSI, RAILWAY.

The Cheng-Tai, or Shansi, Railway joins the Peking-Hankow line at Shihchiachwang, near Chengtingfu, about 50 miles south of Paotingfu, from which junction it runs westward to Taiyuanfu, the capital of Shansi. This line, which was constructed by French engineers and financed by French capitalists, was provided for in a preliminary loan agreement signed with the Russo-Chinese Bank in May, 1898, and a final agreement with the same institution ratified by imperial decree in September, 1902. The total amount of the loan was 40,000,000 francs, and 6,106,000 taels was advanced by the board of communications. The line brings the rich Taiyuanfu Valley into touch with Tientsin and Shanghai by its junction with the Peking-Hankow Railway. The total length of the line is 151 miles; it is of 1-meter gauge. Construction work was begun in 1904 and the road was opened for through traffic in September, 1907. Its construction was difficult, including several tunnels, some over 1,000 feet in length. At one place the railway rises 3,000 feet above the plains. At Taiyuanfu it forms a junction with the projected Northwestern Grand Trunk system, part of which has been built. This part, the Taiyuan-Pingyao section, 40 miles in length, was begun in September, 1910, and was opened early in 1912.

The head office of the Société Française de Construction et d' Exploitation de Chemins de Fer en Chine is at 9 Rue Chanchet, Paris; in China the headquarters are at Shihchiachwang.

The Peking-Hankow Railway administration acts at times as purchasing agents of the Cheng-Tai line.

PEKIN SYNDICATE, OR TAOKOW-CHINGHUA, RAILWAY.

This railway was constructed under an agreement signed in May, 1898, between the Shansi Bureau of Trade and the Pekin Syndicate. This syndicate was registered on March 27, 1897, in London, for the purpose of obtaining and developing concessions for mining, railway, and other undertakings in China. It was originally organized by British and Italian financiers with a capital of £20,000, which was later increased to £1,520,000. The British interests now practically dominate the syndicate. The agreement permitted the syndicate to work coal and iron mines in five different places in Shansi Province; and in June, 1898, a native company signed with the syndicate an agreement on similar terms for mining in Honan Province north of the Yellow River. These agreements stipulated that the syndicate would be permitted to build a railway connecting the mines with a main line or with water navigation. In June, 1902, permission was obtained to build a railway from Pashan, near Chinghua, to Taokow, a port on the Wei River. The length of the line is 96 miles, with a branch line of 7 miles. This line, which cost more than $3,000,000, was opened to traffic in July, 1904. In June of the following year it was made over to the Chinese Government, the operation for a certain period being left in the hands of the syndicate, which receives 20 per cent of the net profits each year. The line was originally not a loan-built road, as the loan was contracted, after the completion of the road by the syndicate, to buy out the syndicate's absolute control of the line. This road was constructed primarily to bring the product of the anthracite coal mines worked by the syndicate to Taokow, whence it is carried to Tientsin. The line crosses the Peking-Hankow Railway at Sinsianghsien, and secures an all-rail route to Peking and to Tientsin for its coal. The syndicate afterwards surrendered its mining rights in Shansi to the Chinese Government on being paid 2,750,000 taels.

The head offices of this line are at Peking and Chiaotso, Honan. The managers and administrators are the Pekin Syndicate (Ltd.).

PEKING-SUIYUAN RAILWAY.

This line runs from Fengtai to Suiyuan via Peking, Nankow, Hsuanhuafu, Kalgan, Tatung, Fengchen, and Kweihwating. Up to Nankow the road was easily constructed; through the Nankow Pass there was much engineering work—viaducts, tunnels, and heavy grades; beyond that point the road leads over easier plateau ground to Kalgan. Beyond Tienchen, 55 miles from Kalgan, much difficulty was experienced in spanning the rivers with their rocky beds. West of Tatung the line traverses many mountain ranges and rivers, which made that section most difficult from the engineering point of view. This is the only railway in the district built with Chinese capital and by Chinese engineers; the cost of construction amounted to $10,000,000. This picturesque line, the road to the Great Wall, follows the ancient caravan route and military highway from Mongolia into China by way of the historic Nankow Pass, and connects Peking and Tientsin with Hsuanhuafu and Kalgan in Chihli, and with Tatungfu and Fengchen in Shansi, tapping the rich mineral district of northern Chihli and Shansi. From the old frontier mart at Kalgan the camel caravans set out on their journeys across Mongolia to Siberia and central Asia. The hides, wool, and furs of Mongolia reach the trade by this route, and the new railway will do much toward the development of that vast region. It is hoped eventually to extend the line to Urga and Kiakhta (750 miles from Kalgan) and to connect with the Trans-Siberian Railway. A branch line—Peking to Mentowkow, 16½ miles—for coal mines, was opened to traffic in 1908.

The head office of the Peking-Suiyuan Railway is at Peking. The telegraphic address is "Kalganry, Peking."

TIENTSIN-PUKOW RAILWAY.

In 1898 Germany and Great Britain secured jointly a concession for constructing the Tientsin-Pukow Railway. In May, 1899, the preliminary negotiations for financing, constructing, equipping, and operating the line were completed. In 1900 the Boxer uprising suspended further progress. On January 13, 1908, the final loan agreement was concluded between the Chinese Government and an Anglo-German syndicate, and the laying of the line was inaugurated on June 30 of that year. For the first time in the history of railway loans in China, the principle of joint foreign and native management was abandoned and the construction and control of the road vested entirely with the Chinese Government. The total mileage from Tientsin to Pukow is 626 miles. The northern section—Tientsin, Tsinanfu, Taianfu, Hanchwang, 390 miles—built under German supervision, was opened in December, 1910. The southern section—Pukow, Linhwaikwan, Hsuchowfu, Likao, 236 miles—built under British supervision, was opened in November, 1911. The construction of the bridge across the Yellow River having been completed some time previously, the line was opened to traffic through its entire length on June 21, 1912. This line is the most convenient connection between Shanghai in Central China and Tientsin, Peking, Kalgan, Mukden, and the Siberian route in North China. Express trains equipped with sleeping and buffet cars run once a day each way between Pukow and Tientsin, connecting with the through service of the Peking-Mukden line.

The head office of this line is in Hopei, Tientsin. The telegraphic address is "Tsinpury, Tientsin."

There are no railways under construction at present in the Tientsin consular district.

RAILWAYS PROJECTED.

Of projected railways in this district the following are the principal ones:

From Chengtingfu to Techow, a distance of 110 miles, a line would serve to connect the Peking-Hankow and the Tientsin-Pukow Railways, and this was proposed by a German syndicate in 1913. Surveys had been completed at the beginning of the war.

Another line designed to link the two systems is the Tsinanfu-Shuntehfu railway, about 160 miles in length. It would pass through a densely populated agricultural section, connecting Tsingtau, through Tsinanfu, with the heart of north-central China.

The Tatungfu-Chengtu railway, also under agreement for future construction, will be approximately 960 miles in length. The portion of the line from Tatung via Taiyuan to Tungkwan is in the Tientsin consular district. From Tungkwan it will proceed to Sianfu, thence to Hanchungfu, and on to Chengtu. This railway is provided for in a loan agreement signed in July, 1913, with a Franco-Belgian syndicate. The concession includes running rights over the Tungkwan-Sianfu section of the projected central trunk line by which it is proposed to connect Ili with the sea via Sianfu.

Other projected lines in this district are the "Chihli Extra-Mural" railways: Peking-Jehol, 130 miles; Jehol-Chihfeng, 140 miles; Chinchow-Chihfeng, 190 miles; Kalgan-Dolon-nor, 190 miles; Dolon-nor-Chihfeng, 130 miles; Chihfeng-Taonanfu, 330 miles.

The decision of the Chinese Government to construct these lines was taken at the instigation of Japan. Preliminary surveys from Chinchow, on the Peking-Mukden Railway, via Chaoyang to Chihfeng, and from the latter place to Jehol via Pingchuan, a distance of 330 miles, are practically completed. It is proposed that the funds for these lines, whose total length will be approximately 1,110 miles, shall be derived from the surplus of the Peking-Mukden and the Peking-Hankow lines, but it is arranged that Japan shall have priority in the event of China's desiring to employ foreign capital to build these lines. The section between Chinchow and Chihfeng is the first to be undertaken. Construction work has been postponed until the end of the war.

TRAMWAYS.

The only tramways in this district are to be found in Tientsin. The tramway service of Tientsin was inaugurated in 1906 under the Compagnie de Tramways et d'Éclairage de Tientsin, a Belgian concern. The company was capitalized at 6,250,000 francs, one-half for street-car service and one-half for lighting purposes. The whole plant is under Belgian control and operation. The tramways, upon introduction and for a considerable time thereafter, were not well patronized by the natives. However, with the extension of the system and numerous improvements in its physical condition, the enterprise has become successful, but doubtless the principal factor contributing to this result was the reduction in fares. The daily receipts have been augmented until they now amount to about $2,000 Mex.

The power station and car barn are both located in the southwest corner of the native city. The administration office is in the former Austrian concession. There are four lines, each distinguished by the color of its cars. The white line runs around the city. The blue line begins at Peitakuan, traversing the Japanese and the French concessions, after which it crosses the international bridge and enters the Russian concession, terminating at the east railway station. The red line connects the same points by way of the former Austrian, the Italian, and the Russian concessions. The yellow line starts from Peitakuan and runs through the Japanese and French concessions, ending at the river bund on the French concession. Besides the above, a new line—the green—was opened for the special convenience of French missionaries; it runs in the western French concession for a short distance. All the lines are double-tracked. The total length is 13.18 kilometers, or 8.19 miles, and the gauge is 1 meter (39.37 inches).

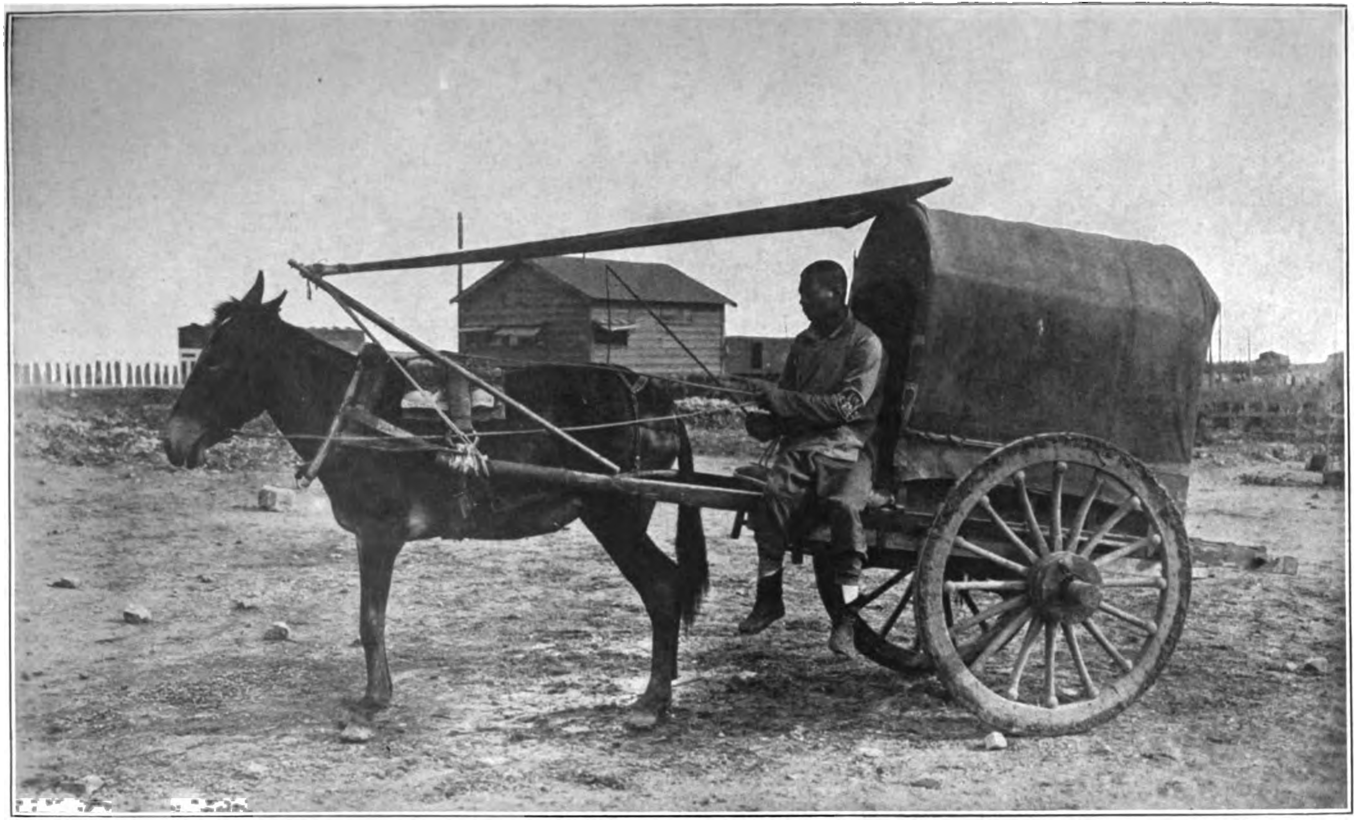
The rails weigh 46 kilos (101.43 pounds) per meter; there are 12 tie-rods for every 18-meter rail. No sleepers are used, the rails being tied together and laid in ballast, 18 inches wide by 15 inches deep. There are 64 cars, each of which is supplied with two motors, and in addition 50 trailers, making a total of 114 cars. Each car has 16 seats, and there are 10 places on each platform. All rolling stock and materials are of Belgian manufacture. The motormen and conductors are natives under foreign supervision.

The fare is 2 cents on one circuit (halfway around the city) and 3 cents on all other circuits, irrespective of distance.

A tramway system for Peking under joint Chinese and French management has been planned; and construction work, it is stated, will be commenced on the termination of the war.

ROADS.

After waterways and railways, roads constitute the principal means of communication in the district. They are, like most roads in China, very poor. From a commercial point of view they have been largely superseded by the railways. As nearly all of Shansi and western Chihli is covered with a deep deposit of loose yellow earth called loess, the roads in that region have worn to a depth sometimes as great as 50 or 100 feet. After heavy rains these roads become streams and therefore impassable. However, the poor roads of the district do not affect economic conditions as adversely as in some other parts of



Photograph by E. M. Newman.

FIG. 29.—SPRINGLESS CART, PEKING.

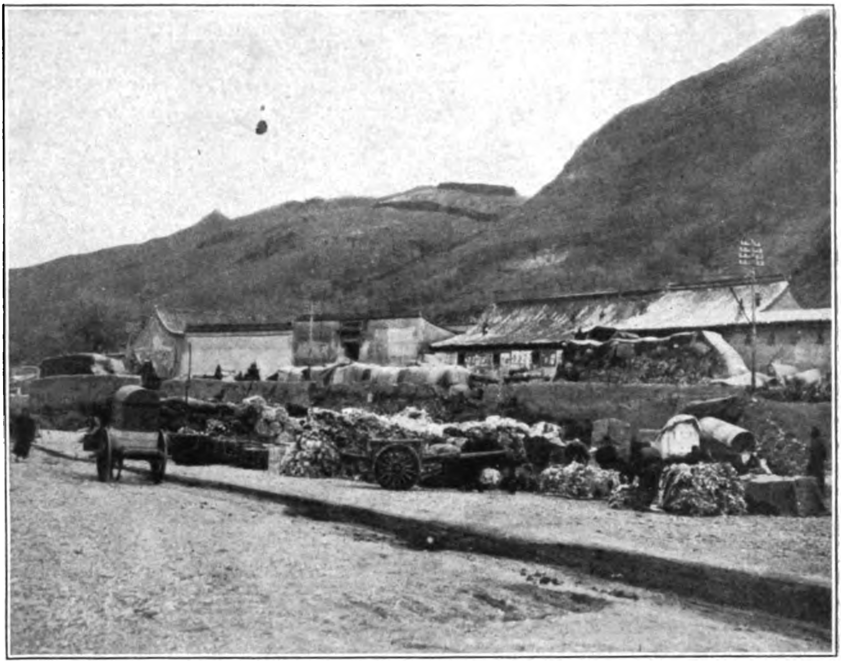


FIG. 30.—MONGOL "GODOWNS" IN PASS AT KALGAN.

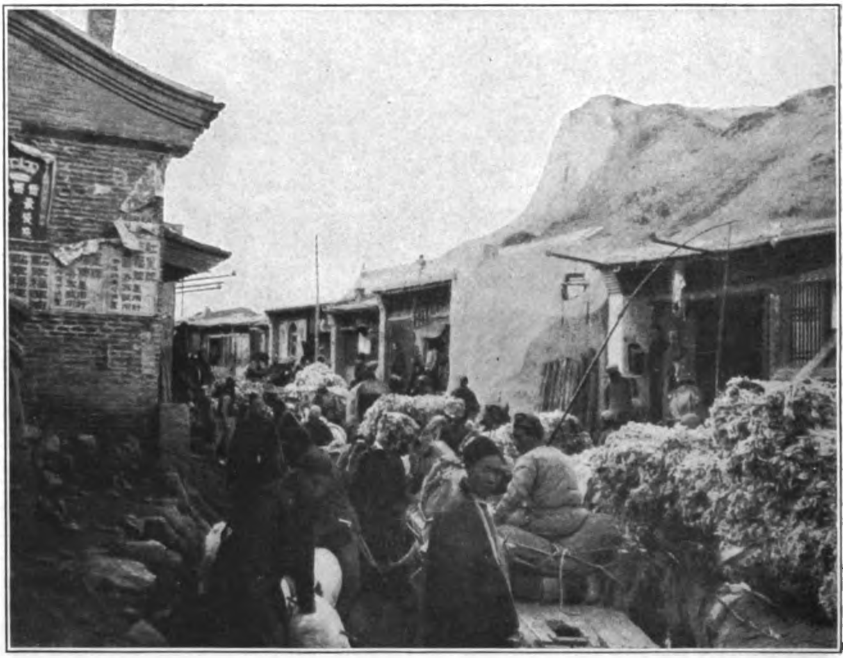


FIG. 31.—STREET SCENE NEAR LIKIN GATE AT KALGAN.

China, because of the reasonably good waterways and the comparatively large number of railways.

The principal roads that still play an important part in the trade of the district are:

(1) The road from Peking to Shanhaikwan, via Tungchow and Yungpingfu.

(2) The road from Peking to Dolon-nor, via Fengninghsien, traversing the Kupeikow pass.

(3) The road from Peking to Kalgan (and thence to Urga, the capital of Inner Mongolia), via Hsuanhuafu, traversing the Changkiakow or Kalgan pass.

(4) The road from Peking to Taiyuanfu, Shansi (and thence to Sianfu, Shensi), via Paotingfu and Chengtingfu.

(5) The road from Peking to Tsinanfu, via Hokienfu.

The road from Kalgan to Urga is still the route over which products to and from Mongolia must travel, and the Taiyuanfu-Sianfu road is one of the great arteries connecting the farthest limit of the railways inland with western China.

Transportation over the roads is by carts (known generally as Peking carts and drawn by ponies and mules), donkeys, and camels. On the road to Urga oxcarts also are much used.

The roads in Peking and environs suitable for motor traffic are about 45 miles in length, while there are about 10 miles of good roads in and about Tientsin. All these roads have been well built and are being maintained properly. A public highway from Peking to Tungchow, a distance of 13 miles, was completed during 1918. The sum of $200,000 was expended on the work, one-half being contributed by the Central Government and the remainder by the American Red Cross. It is planned eventually to extend this road to Tientsin, which would bring its total length up to 83 miles. At present the modern roads of this district total about 67 miles.

Attempts are being made to establish regular motor-car services between Kalgan and Urga across the region commonly described as the "Gobi Desert." No real desert is traversed by the road between these two centers. The most difficult part of the journey is through the rocky ravine, known as the Kalgan Pass, to the table-land at Hanaba, about 15 miles from Kalgan. Thence the road leads through farming country for 50 miles, and grazing lands continue the remainder of the way to Urga, except for a narrow strip of gravel waste land, the eastern spur of the Gobi Desert, which may be crossed by motor car in six or eight hours. Altogether the country is adapted for automobiles in dry weather, which prevails most of the year. The only rain comes with thunderstorms and showers in summer. In winter the temperature is below zero for four months and below the freezing point for almost six months, the cold being accompanied by high winds.

In recent times cars have frequently traveled between Kalgan and Urga, and during the past few years a limited amount of traffic has been carried by power vehicles, the journey taking between three and four days.

A concern called the Ta Cheng Motor Bus Co. has been organized, and, the project having been proved feasible, cars are running regularly from both Kalgan and Urga on the 5th, 15th, 19th, 20th, 25th, and 30th of each month, reaching their destinations in four days. Each car carries four passengers, who are allowed 30 pounds of baggage each, the fare being $120 for a single trip. There are intermediate stations where food and night lodging may be obtained.

The Peking-Suiyan Railway in March, 1918, made a preliminary trial of motor-car service over this route. Six cars were used, and the result is reported to have been satisfactory. It is intended to put additional cars on the run in course of time, so that there should soon be a considerable number of power vehicles operating between Kalgan and Urga. Hitherto merchandise has been hauled on bullock carts or carried on camels, taking up to 40 days to make the journey. The introduction of motor trucks will seriously affect this method of transportation, and motor vehicles are certain to be used as soon as the Chinese interested in the new enterprises are convinced that there is profit in them. Regular lines of freight and passenger carriers should soon be in operation. An American company has already inaugurated a motor passenger service between Kalgan and Urga. The distance between the two points is about 550 miles.

POSTAL FACILITIES.

Chinese postal establishments cover the whole of this district, and the constant extensions and improvements in the service are proving a great convenience to the native and foreign public. The amount of mail matter handled is constantly increasing, and the service is both prompt and dependable, while the charges are moderate. The post office affords adequate parcel-post and money-order facilities between the larger centers of population in the district. These services are entirely satisfactory and are being appreciated more and more by the Chinese. The improvements and extensions in the mail service have had much to do with the development of trade in the interior. An office has been recently opened at the central railway station, Tientsin, to facilitate the exchange of mails between the Peking-Mukden and Tientsin-Pukow Railways. The transmission of mail matter has been greatly expedited by the railway development that has taken place in this district during the past decade or more. The war has interrupted the Trans-Siberian service; previously mail matter by that route has reached western Europe in two weeks.

Foreign post offices are located in the following cities and towns of this district: British, at Tientsin; French, at Tientsin and Peking; Japanese, at Tientsin, Tangku, Shanhaikwan, and Peking; Russian, at Tientsin, Peking, and Kalgan; and German, at Tientsin and Peking. (The German post offices have been closed since the outbreak of war.)

The transmission of parcels between this district and the United States can perhaps be most effectively handled through the American post office at Shanghai, though parcel-post services with foreign countries are maintained by the Chinese and foreign post offices operating in the district. Though an arrangement for money orders between the United States and China has not been effected, the foreign post offices and banks serve this purpose admirably.

In normal times, the mails between the United States and this district are regularly received and despatched, but since the war delays often ensue. As a rule it takes about four weeks for first-class mail matter to reach this district from New York.

TELEGRAPHS.

Telegraphs were introduced into this district on December 24, 1881, the date on which the line from Shanghai to Tientsin was officially opened. In August, 1884, Peking was linked up with Tientsin and, about the same time the Shanghai-Tientsin line was extended to Shanhaikwan and Paotingfu. The land lines were operated by a native company under Government control until 1908, when the Ministry of Communications took over the service. The system at present extends to practically all cities and towns of importance in the district. While the telegraph service is modern and generally gives satisfaction, there is public complaint that the time taken for transmission of a telegram is often greater than is required for a letter sent by train or steamer, and that the tariff is too high. Both of these grievances grow out of the fact that official telegrams go free of charge and take precedence over all others.

The rates for telegrams in foreign languages are as follows: To stations in the same Province, 9 cents per word; to stations in other Provinces, 18 cents per word; press telegrams throughout China, 6 cents per word. The rates for telegrams in Chinese are: To stations in the same Province, 6 cents per character; to stations in other Provinces, 12 cents per character; press telegrams throughout China, 3 cents per character.

Direct telegraphic connections between China and the United States are through the Commercial Pacific Cable Co., whose line touches China at Shanghai. The rate per word charged at Peking and Tientsin for cablegrams via the Pacific to the eastern part of the United States is $1.60 and to San Francisco $1.50, local currency.

The telegraphic materials in use have been supplied by the various countries of northern Europe and America, but since the war they have mostly come from Japan. Recently a group of Japanese capitalists made a loan of 20,000,000 yen to China for the purpose of improving and extending the telegraph service. The terms of the loan contract stipulate, among other provisions, that Japanese advisers and technical experts are to be employed, that all materials are to be bought through Japanese agents, and that in the event of any further loans for the telegraph service Japanese financiers are to be given the option.

Realizing that the telegraph lines in the frontier Provinces are in urgent need of repairs and extensions, the Ministry of Communications recently proposed, and the Government approved, the construction of a number of lines, one of which affects this district—a line from Kalgan via Kweihua and Ninghsia to Kuyuan in Kansu, about 957 miles.

There are three wireless installations at Peking—one by the Chinese Government and one each by the American and Italian Legations. Also there is at Chinwangtao, under Japanese military control, a Marconi signal station with a mast 360 feet high.

TELEPHONES.

The telephone system in this district has been greatly developed in recent years. When first introduced, the telephone was patronized but little by the natives; now, however, it has proved itself to be as important a branch of communications as any other. The telephone is being widely used in all the cities and towns. Tientsin has the central telephone station of the Province, and Peking and Tangku are substations. The number of telephones in Tientsin is 3,800 and in Tangku 60, and their number is likely to continue to increase as time passes. Applications for installations are always in excess of the supply of instruments available. In June, 1914, an improvement was effected in Tientsin by the installation of a modern metallic-direct plant and the merging of three small exchanges into one building.

In Peking there are three telephone exchanges, the exchange known as the east office also containing the administration. The number of instruments in present use is more than 8,000. As the service is still not sufficient to supply the needs of the city, it is intended to install a new exchange. Details of the telephone systems of Tientsin and Peking are as follows:

Tientsin.—Chinese Government Telephone Administration; Chinese Government telephone system, with long-distance lines to Peking and Tangku; common battery system; address, Chinese Bund, Tientsin.

Peking.—Chinese Government Telephone Administration; Chinese Government telephone system, connecting with Tientsin and Tangku; common battery system.

Tangshan, Paotingfu, and Kalgan have telephone services owned and operated by Chinese private companies. The system in each is the magneto, nonmultiple. Besides, the railways in this district have their own telephone systems. These telephones are available to the public also on payment of a fee.

The quarterly subscription for one telephone in Tientsin is $18, and for each extension $6. The charge for conversation in one locality is $0.10 for five minutes, and with other stations $0.50 for five minutes within a radius of 40 miles. The charge for long-distance messages between Tientsin and Peking is $0.80 for every five minutes. The materials in general use have been purchased in the United States and Germany, but where old instruments and wires are used they have come mostly from Japan.

NEWSPAPERS.

The number of Chinese newspapers in this district has shown a remarkable growth in recent years. Though there is much in the native press that might be regarded as harmful to public and private weal, there is no doubt that open discussion and criticism and the publication of news are exercising a beneficial influence.

Following is a list of the leading foreign and Chinese newspapers published in Peking and Tientsin, together with the daily circulation of the Chinese papers:

Peking:
  Peking Daily News; British.
  Peking Leader.
  Peking Jih Pao; circulation about 5,000.
  Shuntien Shih Pao; circulation about 20,000.
Tientsin:
  North China Star; American.
  Peking and Tientsin Times; British.
  China Critic; British.
  China Times; British.

Tientsin—Continued.
North China Daily Mail; British.
L'Echo de Tientsin; French.
Social Welfare; circulation over 8,000.
L'Impartial; circulation over 6,000.
Tientsin Daily News; circulation over 3,000.

The Chinese papers generally consist of eight sheets each, nearly half of the space being covered with advertisements. Besides local news, presidential orders, and important appointments, they publish news of China generally and the principal foreign telegrams. They also deal with exchange, markets, and commercial news. The daily leading article treats intelligently of current affairs of interest. The monthly subscription is 70 cents, and the price per copy is 4 cents.

The advertising rates of the vernacular newspapers may be given approximately as follows: One-half page—$1,000 for a year; $280 for three months; $100 for one month. One-quarter page—$500 for a year; $140 for three months; $50 for one month. Minimum—100 characters. One day—1 cent per character. 10 days—$\frac{3}{10}$ cent per character. 20 days—$\frac{2}{10}$ cent per character. One month—$\frac{1}{2}$ cent per character, for minimum of 50 characters. One year—same rate as by the month, except that only 10 months will be charged for the year.

PUBLIC WORKS AND SANITATION.

IRRIGATION PROJECTS.

Though there is an urgent need in this district for work of this character, irrigation in a modern sense has made very slight progress. The numerous waterways, instead of being conserved and utilized, for irrigation purposes, have become a perpetual menace to the adjacent population in that any unusual amount of rainfall often causes them to burst their banks and inundate large areas of surrounding country. It is a problem how adequately to conserve the water supply with a view to increasing the agricultural possibilities of the district. To achieve satisfactory results the primitive irrigation methods now used by a section of the agricultural population will have to be replaced by modern ones, and the irrigation work now carried on must be greatly extended.

CONSERVANCY PROJECTS.

Closely connected with irrigation work is that of conservancy, whose main problem is the prevention of floods. The shortsighted policy of the past in denuding the land of forests has resulted in disturbing the regular flow of the streams. Apart from the excellent results obtained in the Peiho under the auspices of the Haiho Conservancy Commission, no noticeable improvement has been effected in any of the waterways of this district. No measures other than those relating to the Tientsin River have ever been taken to prevent floods, while those adopted for protection against floods have been of a temporary character and were not undertaken seriously. It is only to be expected, therefore, that the efforts so far expended in this work have been devoid of permanent beneficial results; they have only brought about an elevation of the river beds and other abnormal conditions which modern conservancy methods alone can remedy. Hitherto this work has been greatly hampered by lack of adequate and continuous Government support.

By the terms of article 10 of the peace protocol of 1901 the Chinese Government undertook to improve the condition of the Haiho River, and to this end it agreed to be represented on an international commission charged with the supervision of the Haiho Conservancy and to contribute 60,000 Haikwan taels every year toward the cost of operations.

Much progress has been made in the work connected with this conservancy. The river has been dredged and widened in various places with the object of affording a better channel for navigation. Abreast of the wharves at Tientsin the channel is being kept constantly dredged and has been widened so as to permit much larger steamers than formerly to reach the bund.

The question of deepening the channel at Taku Bar by means of a powerful suction dredger had long been kept in abeyance for lack of funds. As a provisional expedient, a method of raking the channel over the bar by means of a "rolling plow" was adopted in 1906, but this process did not produce more than a moderate and temporary improvement.

In 1909 the Chinese authorities and the diplomatic body sanctioned a scheme for the further improvement of the river and bar, involving the purchase of a suction dredger and a bucket dredger, which with tugs and other equipment, including labor, were to cost 870,000 taels. A loan to cover this expenditure was successfully floated. Revenue for meeting the interest charges and amortization of this loan as well as the continuance of the work was provided by a special tax of 4 per cent of the customs duties and a shipping tax of 0.10 tael per ton, or on ships not passing the bar at Taku 0.05 tael per ton, or 0.10 tael per ton on all cargo discharged or loaded. This tax is in addition to the sum of 5,000 taels contributed monthly to the conservancy funds by the customs. The principal work under the scheme was begun in May, 1911. The excavation was completed in October, 1912. The benefits derived from this cutting were the shortening of the river by 5.6 miles and the deletion of two bends. As a result of the shortening, the bed of the river fell considerably. The large quantities of mud and silt taken yearly from the harbor have been used in filling large areas in the French and German concessions and the British extra-mural concession.

In May, 1911, the Tientsin General Chamber of Commerce raised the question of keeping the port open in winter as far as Tangku by means of ice breakers. Two ice breakers were obtained in 1913 and one in 1914, and a channel 12 feet in depth at low water has been successfully maintained.

The Grand Canal Improvement Board, consisting of several Chinese directors and an American chief engineer as well as a number of assistant engineers, also American, began operations during 1918, and some preliminary surveys have been made. A loan agreement for $6,000,000 was concluded in 1917 by the Chinese Government with the American International Corporation for the improvement of the Grand Canal. The work is being undertaken by the Siems-Carey Railway & Canal Co., an American concern.

At one time the Chinese authorities entertained the idea of undertaking conservancy work on the Paotingfu River (Hsiho).

The question of conserving the waterways of Chihli Province, with a view to preventing disastrous floods and safeguarding the trade and shipping interests of Tientsin, has occupied attention for some years past, and various conservancy engineers have individually issued reports on the subject, but no coordinated scheme on broad lines and acceptable to all interests has hitherto been adopted. In the autumn of 1917, however, after the disastrous flood in September of that year when 15,000 square miles of territory between Paotingfu and Tientsin were inundated, destroying 80,000 villages and causing the loss of crops valued at $100,000,000, a proposal was made for the appointment of a joint commission to be composed of three representatives of the Chinese Government and three persons nominated by the Board of the Haiho Conservancy. It is called the Commission for the Improvement of the River System of Chihli. Its duty is first to study the questions involved and ultimately to submit recommendations for acceptance by the Chinese Government. The proposal was assented to by the Chinese Government and the commission is now functioning, its meetings being held in Tientsin. The problem is not alone to control floods, but also to insure an even and regular flow of water in the Haiho, which is deemed absolutely necessary if Tientsin is to maintain its place as a port of shipment.

MUNICIPAL WORKS.

Before the Boxer disturbances in 1900 Tientsin, in common with other Chinese cities, was deficient in municipal and sanitary arrangements; after that date, however, many improvements were effected in the whole of Tientsin, including both the Chinese city and the foreign concessions. In the foreign settlements, especially the British, French, Japanese, and German concessions, the marked development along municipal lines has caused these communities to rank with the best-ordered towns of the United States. Living conditions in the foreign concessions at Tientsin and in the Legation Quarter at Peking are all that can be desired. The streets are macadamized, well maintained and kept clean. There are adequate lighting, water, and sewerage systems. All the districts are efficiently policed. These features of the various municipalities are described in detail elsewhere under the appropriate headings. The measures taken for protection against fire are adequate. The fire brigades of the various concessions in Tientsin, composed of foreign volunteers, are very efficient. They are equipped with modern fire-fighting apparatus.

In the Chinese city of Tientsin radical improvements have taken place. The police administration has been improved, lawlessness has been diminished, schools, hospitals, and prisons have been established, fine government buildings have been erected, a large park has been laid out, and improved roads have been constructed. The city wall built in 1405 has been removed and the base now forms a splendid roadway. The streets have been straightened and in many places widened. Tramways have been introduced and electric-light, telephone, and water systems installed. There is a fire department under police control, besides numerous volunteer fire brigades. Sewers have been constructed, but a modern system of drainage has not yet been introduced. While many of the main streets have been reconstructed and remetalled, the lanes and by-streets as a rule remain unimproved. There are several large and well-managed slaughterhouses. Many of the large ponds, so common in the suburbs of all Chinese towns, are being gradually filled in.

Commercially Tientsin has suffered severely as a result of political unrest and floods, but it has always rapidly recovered and still continues to be the model city in the Republic. It is interesting to record here that in many steps toward improvement in matters of public convenience, and in social, educational, sanitary industrial, and commercial methods, as well as in the introduction of local municipal self-government, Tientsin has been made an experimenting ground for the nation.

Peking has likewise witnessed many physical improvements since 1900. They are similar to those described with reference to Tientsin. In the other cities and towns of the district the development along municipal lines has been less marked. While the changes therein are few in number and occur gradually, nevertheless real progress is being made.

PUBLIC-SERVICE COMPANIES.

LIGHT AND POWER PLANTS.

Practically all the cities and towns of this district are supplied with electric lighting and power plants. A description of the companies in the various centers follows:

TIENTSIN.

The Tientsin Gas & Electric Light Co. (Ltd.) supplies electric light to the British concessions. The current is 440/220 volts, direct. The company is owned and operated by foreigners. The general managers are William Forbes & Co., Tientsin.

L'Énergie Électrique de Tientsin supplies electric light to the French concession. The current is 5,000/220 volts, 3-phase, 50-cycle, alternating. The company is under French management.

The Japanese Electric Lighting Co. supplies electric light to the Japanese concession. The current is 2,300/110 volts, 3-phase, alternating. The company is under Japanese management.

The Tientsin Tramways & Lighting Co. (Ltd.) supplies electric light and power to the native city of Tientsin and the Italian, Russian, Belgian, and former Austrian concessions. The current is 5,000/220 volts, 3-phase, 50-cycle, alternating; it also supplies 550 volts direct current, the latter for furnishing power to the tramways. This company has in operation two 1,500-kilowatt turbines, and has recently ordered one 3,500-kilowatt turbine.

The German Electric Light plant supplies electric light to the former German concession. It is managed at present by the "Special Bureau for Administrative Affairs." The current supplied is 440/220 volts, direct. This was originally a German company, and has now been taken over by the Chinese Government.

Small independent plants in Tientsin are:

The plant supplying electric light to the United States Army barracks, located in the former German concession. This supplies 440/220 volts, direct current, by means of a 52-kilowatt engine.

Carlowitz & Co.'s plant, 110 volts, direct current.

Liddell Bros. & Co.'s plant, 220 volts.

The Astor House Hotel's plant, 110 volts.

PEKING.

The Peking Chinese Electric Light & Power Co. (Ltd.) supplies 3,000/220 volts, 3-phase, 50-cycle, alternating current. The plant has two turbines, and is under Chinese management, with a foreign engineer.

The Peking Electric Light Co. supplies 440/220 volts, direct current. The plant is equipped with producer-gas engines, and is under foreign supervision.

In addition, there is a plant at the palace in the Forbidden City, and also one at the Summer Palace, concerning which no detailed information is obtainable.

CHINWANGTAO.

The port of Chinwangtao is supplied by the Kailan Mining Administration's plant. The current is 220 volts, 50-cycle, alternating.

SHANHAIKWAN.

Shanhaikwan is supplied from the workshops of the Peking-Mukden Railway. The current is 220 volts, direct.

TANGSHAN.

Part of Tangshan is lighted from current supplied by the Peking-Mukden Railway shops. The current is 220 volts, direct. Another part of the town is connected with the lines of the Kailan Mining Administration, which has recently erected a new turbine plant at Linsi (near Tangshan) with a transmission line to Tangshan and Chakochwang. The electrical equipment of the Kailan Mining Administration is reported to be one of the best in China.

The plant of the Chee Hsin Cement Co., also at Tangshan, is 3,000/220 volts, 3-phase, 50-cycle, alternating current, with a 1,250-kilowatt engine.

PAOTINGFU.

Paotingfu has at present an old gas-engine plant that was used formerly in the palace at Peking. It is reported that negotiations are now under way for the erection of a new plant.

KALGAN.

At Kalgan a plant is now being installed by the Mitsui Bussan Kaisha.

TAIYUANFU.

At Taiyuanfu a plant has been installed by a Chinese company. The current supplied is 220 volts, direct.

So far as is known, none of the above-mentioned companies is bound by any agreement to obtain its equipment from any one supplier.

The usual charge for electric consumption is about $28 for the first 1,000 units, and then at a decreasing rate.

WATERWORKS.

The waterworks of Tientsin consist of two systems—the Tientsin Waterworks Co. (Ltd.), a British concern, and the Tientsin Native City Waterworks. The first-mentioned does not give entire satisfaction, especially with regard to fire protection, whereas the latter in this respect is more effective. The filter system employed by both concerns renders the water practically free from impurities.

In Peking there is the Peking Waterworks Co. (Ltd.), organized and managed by Chinese but with foreign engineers. It has many stations throughout the city and gives a good service.

The water charges range from $0.70 per 1,000 gallons, Chinese system, to $1 per 1,000 gallons, foreign system.

TREATY PORTS AND FOREIGN CONCESSIONS.

The principal treaty ports of this district are Tientsin and Chinwangtao. The former was opened to foreign residence and trade in May, 1861, under the British treaty of 1860, while the latter was opened in December, 1901, under an imperial decree of 1898. Kalgan, Chihfeng, Chaoyang, and Dolon-nor, in northern Chihli near the Mongolian frontier, were opened in 1916 under a presidential order.

TIENTSIN.

Tientsin, at the junction of the Peiho and the Yuho, about 40 miles from the coast at Taku, is excellently situated both for domestic and foreign trade, and Chinwangtao on the sea, being ice-free, is important as being the sole port of Tientsin and Chihli during the winter months. The Peiho River and Taku bar freeze over early in December and remain closed to navigation until about March 1, except when the bar in mild winters is kept open by means of ice-breakers. The depth of water on the Taku bar ranges from 11 to 14 feet. Vessels bunkering outside the bar are served by lighters from Tangku.

Tientsin is well served with railways and rivers. It has an area of about 24 square miles and a Chinese population of about 1,000,000. The European and American population in Tientsin, while very fluctuating, may be reckoned at about 3,000 persons. The foreigners include a wide range of nationalities—British, Americans, French, Russians, Japanese, and Germans constituting the largest foreign communities. The Americans, excluding the military, number about 300. In Tientsin the winters are cold, clear, and dry, with but little snow. The summer is short, but the months of July and August are generally hot and sultry, rain falling almost daily.

There are at Tientsin eight foreign settlements—those of Great Britain, France, Japan, Russia, Italy, and Belgium, as well as the former German and Austrian concessions. On March 16, 1917, the Chinese authorities took over the German concession in consequence of the Chinese Government's having broken off diplomatic relations with Germany. On August 14, 1917, when China declared war on Germany and Austria-Hungary, the Austrian concession was also taken over. Special bureaus for administrative affairs were appointed, which administer on the same lines the municipal regulations existing previously.

A brief account of the formation of the various concessions in Tientsin may be helpful to an understanding of the present situation. The Chinese superintendent of trade for the northern ports, in 1860, just subsequent to the opening of Tientsin to foreign residence and trade, as provided by the various treaties of that year, laid out in that port three tracts of land along the river as concessions or places of settlement for English, French, and American residents. The land areas measured off for the English and French concessions were purchased by those Governments from the Chinese Government and then sold to persons of any foreign nationality desirous of buying. Similar action, however, was not taken by the United States. The American purchasers, of whom there were several, bought directly from the Chinese Government those plots of ground within the limits of the so-called American concession that they desired to secure. On June 27, 1896, this small tract was unreservedly handed back to the Chinese Government. The Chinese authorities, however, failed to resume jurisdiction, so that the exact status of the area remained undetermined until 1902, when the American Government, with provisions looking toward a resumption of jurisdiction in certain contingencies, handed over the concession to the British Municipal Council, with which municipality it has since become incorporated. The land for the German concession was ceded in 1896. In the same year the Japanese took up a concession in accordance with the terms of the Treaty of Shimonoseki. They filled in land, laid out streets, and built a large number of houses in foreign style. Thus up to 1900 foreigners resided only in three concessions—British, French, and German, which fringed the river below the city and covered an area of less than 500 acres.

During the Boxer disturbances in 1900–1901 various foreign powers appropriated for concessions large tracts of land in Tientsin and its environs. Those powers that previously possessed concessions extended very considerably their respective boundaries, while others, Russia, Belgium, Italy, and Austria-Hungary, secured large areas on the left bank of the Haiho as future settlements. These developments have placed all present and future landing facilities for direct seagoing traffic in foreign hands.

The concessions have excellent and well-lighted roads, with an electric tramway system. They are efficiently policed. The British municipality has an attractive town hall, completed in 1889; adjoining there is a well-kept public garden, opened in 1887 and called Victoria Park. Nearly all the concessions have spacious, beautiful parks. An excellent recreation ground of 10 acres has been developed in the British concession, and 3 miles distant there is a splendid race course. There are two large hotels, two clubs (the Tientsin Club and the French Club), two excellent libraries, and three churches (Roman Catholic, Anglican, and Union). Electric lighting was introduced in June, 1905. In fact, all the features found in modern municipalities exist in the various concessions of Tientsin.

The concessions at Tientsin, while organized by the foreign governments primarily concerned, are maintained by all the foreign residents who are citizens or subjects of treaty powers and at the same time owners or renters of land in these localities. Though China retains sovereignty over these areas, it has relinquished all jurisdiction. The classes of foreign residents above described constitute the ratepayers to whom the right of franchise is generally limited. They elect annually the municipal councils, which are charged with the general administration of public affairs in the various settlements. The municipal councils originate the regulations for the government of the settlements, and, after their approval and promulgation by the proper authorities in China of the country holding the concession, see to their enforcement. The organic regulations enacted for the administration and control of the various concessions have in each instance been submitted by the holding Government to the Governments of the other treaty powers for approval. Once the concession and the regulations are thus recognized (as has been done by the United States in the case of all the Tientsin concessions), the ordinances of the various municipalities are held as applicable to those American citizens who reside in any of these concessions.

ADMINISTRATION OF CONCESSIONS—RIGHTS OF FOREIGNERS.

The consular representative of the country possessing a concession exercises superior authority in its affairs, and in a number of instances serves as ex officio chairman of the municipal council. The councils as a rule are empowered by regulations of their respective governments to control the planning of the streets, the leasing of land and buildings, the guarding and policing of the settlements, and the educational and sanitary measures therein. Each of the settlements has its own police force. The councils impose and collect local taxes to defray maintenance charges. All construction charges and such excess of maintenance charges as can not be met by local taxation are defrayed by the government of the country concerned.

Under the provisions of the treaties with China, citizens and subjects of the treaty powers residing therein are amenable only to their own laws and courts. They are exempt from the enforcement of Chinese laws and the jurisdiction of Chinese courts. This is the system of "extraterritoriality." Thus American citizens in China are not subject to any judicial control except that administered by the American consular authorities and the officers of the United States Court for China. It has been explained how, in addition to American laws, police and other regulations promulgated by the foreign municipalities, and subsequently approved by the consul general and the minister, are enforceable against Americans.

As regards judicial procedure, no American citizen can be arrested or complained against in a civil action, except by and through the action of the proper consular officer of the United States, or the proper officer of the United States Court for China. Whether an American citizen commits a criminal offense or is amenable to a civil process, even though the offense may be merely an infraction of the local municipal ordinances which he himself has a voice in enacting and which the consul and minister of his country must have approved before their applicability to him was determined, there is no officer of China, or of any other nationality in China, who has jurisdiction, except the above-named officers of the country of the accused. The only warrant or summons an American citizen is required to obey must bear the signature of the consular officer of the United States or else of the judge of the United States Court for China.

There are no limitations upon the rights of all friendly aliens to reside and transact business in the concessions. Such foreigners may lease land in any of the concessions, but as a condition precedent thereto are compelled to sign an agreement to abide by the municipal regulations and by-laws. The agreement is witnessed by the consul of the lessees' nationality.

The Chinese Government may not arrest one of its own citizens within the settlements without the authorization of the consul concerned, and while such citizen is tried in a native court, yet a foreign assessor representing the consul may be present—usually by agreement the consul of any citizen who may have an interest in the case. The purely Chinese courts, in which no foreign assessor appears with authority of any considerable degree, are occasionally invoked in aid of foreign plaintiffs at Tientsin. But usually difficulties with Chinese are left to the friendly settlement of the consul of the plaintiff in correspondence or conference with the Chinese officials.

In each of the concessions the holding country has a consular establishment to look after the interests of its nationals. In addition, Brazil, Denmark, the Netherlands, Norway, and Spain have consular representation in Tientsin; the consul for Belgium is also acting consul for the Netherlands and for Spain; the Russian consul general serves as acting consul for Denmark, while the representatives of Norway and of Brazil are local merchants. There are no consulates in Chinwangtao, Kalgan, and the other treaty ports. The American consulate general at Tientsin is at present located in the Rue de Paris, French concession.

CHINWANGTAO.

The harbor at Chinwangtao, though good, is very small. The population of the city is about 50,000. Steamers visiting Chinwangtao are mostly colliers owned or chartered by the Kailan Mining Administration, which has adopted all possible measures for working ships with increased rapidity. Arrangements are made to berth at night and start working without loss of time. The harbor has a depth of 23 feet at its entrance and 26 feet along the breakwater. Chinwangtao now ranks as the premier port east of Suez for the shipment of coal, its export being larger than that of any port in Japan and equal to three times that of Hongay, in Tongking. In Chinwangtao and the adjoining seaboard places of Peitaiho and Shanhaikwan the climate is very healthful, many persons from all over North China going there during the heated period to enjoy the cool breezes and salt-water bathing.

STATUS OF PEKING IN RELATION TO FOREIGNERS.

Peking is not an open port or place of trade, and foreigners other than members of the diplomatic body, those connected with the Chinese Government services, missionaries, and teachers in schools and colleges can not, therefore, base their right to reside outside the Legation Quarter upon any treaty stipulation. However, a number of foreigners other than the classes enumerated above, through sufferance and without any restrictions, reside and carry on trade there. The question of setting apart an area for foreign residence and business was considered by the Chinese Government in 1912. Peking has about twice the area of Tientsin and an estimated population of 600,000. There are 425 Americans residing in Peking, the great majority of whom are missionaries engaged in evangelical, educational, and medical work. Also many Americans there are employed as instructors in native schools and colleges, while others are engaged in hospital work.

FOREIGN POPULATION OF TIENTSIN DISTRICT.

In 1917 the foreign population of the Tientsin district, according to the customs statistics, was 8,951, comprising 4,752 Japanese, 1,371

British, 1,043 Americans, 613 Germans, 202 Belgians, 194 French, 167 Russians, 124 Austrians and Hungarians, 87 Italians, and 398 of other nationalities. Of the 357 foreign firms in 1917, 157 were Japanese, 81 British, 32 German, 28 French, 27 American, 8 Russian, 7 Belgian, 6 Italian, 6 Austro-Hungarian, and 5 of other nationalities. The foreign residents and firms include persons of Chinese origin or descent who are citizens, subjects, or protégés of the nationalities indicated. The German and Austro-Hungarian firms ceased doing business upon China's entrance into the war.

Conditions in the treaty ports of this district are favorable to foreign trade generally, and American trade in the foreign concessions does not suffer as contrasted with that of the holding nation. In each of the concessions there is the "open door," or principle of equality of commercial opportunity.

FINANCE AND BANKING.

The currency question is as complicated in this district as elsewhere in China. Copper cash have made way for the 10 and 20 cash copper coins. Among the natives small business transactions are done in copper cents, the price of the article purchased being payable in dollars or notes, as the case may be. For instance, if cotton be offered for sale, the price will be estimated at so many cents, and payment will be effected in local currency at the rate of exchange of the day. The general Tientsin currency in business with foreigners is "large" silver dollars and bank notes. Among the natives, besides copper cents, there are current, as subsidiary coins, 10 and 20 cent silver pieces, each stamped with a tael value. The Hongkong and Mexican dollar are now seldom seen and are sometimes at a premium and at other times at a discount. Prior to the revolution of 1911-12 the Peiyang dollar was in general use and many are still in circulation. The newly minted Republican dollars, which were put into circulation after the revolution, are current everywhere, as they show no distinctive mark of the mint that issued them. Besides the Republican dollar, which is to be the sole unit of the new monetary system once it is firmly established, there are being issued subsidiary silver coins in denominations of 50 cents, 20 cents, and 10 cents. The value of the Republican dollar in reference to the small coin and the copper cents varies daily, the present value for small coin ranging from 108 to 122 cents and for coppers from 130 to 135 cents. This applies also to the Peiyang dollar. A preference is shown for foreign bank notes, as they can be cashed on presentation at the local bank agencies.

Great quantities of notes for "large" dollars have been issued under Government guaranty. Copper-coin notes are issued by the Ministry of Finance in denominations of 10, 20, 40, and 50 copper cents.

Although the dollar is used in domestic and retail transactions, the tael is the unit of value in large commercial transactions between foreigners and natives. As the tael is not a coin but a weight, it is converted into a dollar value at the current rate.

There are in Tientsin at least three kinds of tael—the hongping, the kungfa, and the Haikwan, or customs, taels—two different kinds of dollars, small coin in silver in every coinage of the Republic, copper coin in notes, copper cents, as well as the notes of eight different foreign banks located in Tientsin and in Peking.

The Bank of China and Bank of Communications are national banks of China, but as their note issues at Peking are without sufficient reserve, they are depreciated and sell at a discount, at present over 40 per cent less than their nominal value; but the notes of the Tientsin branches of these two banks circulate alongside the foreign bank notes on the local market in business transactions.

The foreign banks operating in this district are the following (all having establishments in Peking and Tientsin):

Hongkong & Shanghai Banking Corporation.
Chartered Bank of India, Australia & China.
Banque de l'Indo-Chine.
Banque Industrielle de Chine.
Banque Belge pour L'Étranger.
International Banking Corporation.
Asia Banking Corporation.
Russo-Asiatic Bank.
Yokohama Specie Bank (Ltd.).
Deutsch-Asiatische Bank (closed in consequence of China's declaration of war against Germany).

These banks engage in every kind of banking and exchange business, but a general preference is given to the merchants and traders of the same nationality as that of the banks.

A Sino-Japanese Exchange Bank has been opened lately in Peking to facilitate loan arrangements between China and Japan.

In addition to the two Chinese Government banks there are many private banks, among which are several large and prominent institutions. The opening in Peking of the head office of the Ta-Ching Bank (now the Bank of China) in 1905 was followed by the establishment shortly thereafter of suboffices at Tientsin, Paotingfu, and other centers in the Province. As soon as this bank was known to be a profitable undertaking, other banks sprang up, and there are now in Chihli Province alone many other large Chinese financial concerns, such as the Chihli Provincial Bank, Chih Cheng Bank, Chung Foo Union Bank, etc.

The usual rate of interest on fixed deposits and current accounts in taels given by foreign banks is 5 per cent and 2 per cent per annum, respectively; the rate of interest charged on overdrafts is 8 per cent. With the larger Chinese banks conducted along foreign lines the rate of interest on fixed deposits is 10 per cent and on current accounts 4 per cent a year, while the interest on short-term loans against real-estate security and crops security is at the rate of 12 to 15 per cent a year according to arrangement. Thus it is seen that Chinese dealers can obtain banking facilities from the larger Chinese banks at rates not much higher than those charged by foreign banks.

Loans made with ordinary private banks are limited to a period of one year. Interest on loans under $1,000 is charged by these banks at a rate of 2 per cent a month; above $1,000 and within $3,000, at the rate of 1½ per cent a month; above $3,000 and within $5,000, at the rate of 1 per cent a month; above $5,000, four-fifths of 1 per cent a month. The average rate of interest charged on large loans varies from $0.90 to $1.20 a month per $100. The interest charged on loans by individual merchants to each other is $2.50 to $3 a month on every $100. The Chinese banks in local exchange business seldom have a capital exceeding $100,000 Tientsin currency.

So far as assistance in developing Chinese trade is concerned, the larger native banks are gradually coming to play a more important rôle, but the ordinary private banks in respect to trade extension are practically useless. The business of the latter appears to be restricted to advances on real estate and other approved securities at high rates of interest and to dealing in exchange values, in which the numerous currencies and notes of North China afford an extensive business.

MANUFACTURING AND OTHER INDUSTRIES.

Agricultural pursuits form the principal occupation of the Chinese in this district. Next in order of importance come the numerous small industries, some of which are of the household type. All these industries, though extensively developed, have made little progress, as the methods are antiquated and the tools crude and primitive. However, in the larger cities, such as Peking, Tientsin, Paotingfu, etc., manufacturing and other industries are conducted on a much larger scale and according to more modern methods than in the country districts. The principal native industries in order of importance are: Cotton growing and manufacture, raw cotton being produced in large quantities in Chihli and northern Honan; sheep raising and woolen manufacture, carried on chiefly in the northern towns, Kalgan, Kweihuacheng, etc., which are centers in the region devoted to sheep, goat, and cattle raising; the production of goatskins, which enters so largely into the export trade; and coal mining, which is a leading industry, this mineral being found in many places throughout the district. Coal has come extensively into Chinese household use, and the fact that it can be readily obtained at reasonable prices has stimulated all the various industries of the district. The manufacture of coarse unrefined salt by the evaporation of sea water is also carried on near Taku. Wool cleaning and braid and bristle sorting are the chief industries conducted by the foreign firms except those of the Russians, who are principally engaged in the transit of tea.

The chief native manufactures are cotton yarn, cotton belts, sheetings, articles of clothing, carpets, shoes, bean cake, bean oil, chinaware, matches, glass, mats, straw braid, metal manufactures, leather, and the curing and piecing together of skins. Distilling is also a large local industry. The product is derived from kaoliang or millet and is exported to the southern ports of China. Peking is well known for its cloisonné or enameled ware, which is manufactured in large quantities. The fine arts are unknown to the natives of Tientsin except for cleverly made mud figures; these are attractively painted but are difficult to transport, being very brittle.

In Tientsin there are numerous factories under Chinese control and management, namely, 20 weaving factories, and an equal number of soap and candle factories, 20 factories producing cigarettes, glassware, and matches, and 2 tanneries. There are also small factories making tooth powder, perfumes, shirts, socks, canned goods, condensed milk, and leather goods. Throughout the Province, under government auspices, are about 80 industrial institutions, weaving factories, technical schools, and practical training factories, apart from a large number of private institutions of like nature. These native industries, though now too limited in output to have much, if any, effect on the market, are worthy of note as indicating that in time North China will become an industrial center of considerable importance.

The introduction of technical industry in the Province originated in the establishment in 1903 of the Practical Training Factory, into which the poorer classes were admitted to be trained in industrial arts. There are 14 different sections, with the fixed number of 500 students, and up to date about 1,600 students have graduated from the factory. They are employed as instructors by official as well as private factories throughout the Province. Many of the graduates have been engaged as tutors in the government factories in Manchuria, Shansi, Shantung, Honan, and Shensi, and about 100 of them are working as experts in the Pachi Factory and the industrial institutions in Peking. The articles manufactured at the factory are sold at the general industrial salesroom.

The Higher Technical School, which has the full number of 120 students, is divided into the sections of chemistry, mechanics, and drawing and painting. The graduates of this school are engaged in business. As preparatory schools there are attached to this the Middle Technical School and the Primary Technical School. The High Industrial School in Hopei, Tientsin, is an institution similar to the Higher Technical School.

The Industrial Exhibition Room has on display various articles of industrial arts for public inspection; a competitive exhibition is held once a year, when prizes are given. As a means of encouraging industrial arts, lectures are given by experts on subjects touching upon the principles of trade and industry. These experts are also despatched by turns to all parts of the Province to investigate and report upon the condition of various industries. The General Investigation Society of Trade and Industry was organized to discuss matters relating to the manufacture and improvement of various objects of industrial arts. In the Educational Factory various articles for educational purposes are made. Already 400 different kinds have been produced and have obtained the sanction of the board of education. These are displayed in the exhibition room, and demands for them are coming in continually from schools in other Provinces.

Besides the Practical Training Factory, there are the Industrial Ironworks and the Kwang Jen Tang Women's Workshops, both of which are producing good results. But by far the most important and largest enterprise is that of the Chee Hsin Cement Co., whose factory is at Tangshan and whose head office is in Tientsin. This concern produces large quantities of cement, brick, tiles, etc., for local consumption as well as for export.

The following are the leading Chinese factories of the district conducted according to western methods:

Changtefu:
  Kwang Yü Spinning Mill.
Tientsin:
  Chee Hsin Cement Co. (Ltd.) (factory at Tangshan).
  Government Woolen Cloth Factory.
  Hua Chang Match Co.
  Hua Hsin Cotton Spinning Mill; 25,000 spindles of American make, producing yarns 10s to 20s; was expected to commence operation in the autumn of 1918.
  Heng Yuan Cotton Mill; 10,000 spindles and 200 looms of American make, to make heavy sheetings, drills, and canvas; was expected to commence operation in the autumn of 1918.
  Mu Fan Cotton Mill; 5,000 spindles of English make, making only yarns of 16s and 32s.
  Peiyang Match Co.

Tientsin—Continued.
- Peiyang Tannery.
- Peiyang Tobacco Co.
- Tientsin Leather Factory.
- Tientsin Wool Spinning Factory.
- Tung Sheng Soap and Candle Factory.
- Wahsing Cotton Spinning Mill; 25,000 spindles.
- Yu Yuan Cotton Mill; 25,000 spindles of American make, producing yarns same as Hua Hsin Mill; work commenced March 1, 1918; $845,000 extension, for 21,000 spindles, is in course of erection.

There are also the workshops connected with the Peking-Mukden (Tangshan) and the Peking-Hankow (Changsintien) railways, as well as the Government Mint at Tientsin and the arsenals at Techow and Taiyuanfu. All these establishments, both private and government-owned, have extended in size and capacity year by year, and the output of the private mills and factories is gradually reaching even foreign markets. Recently the national Government, realizing that the development of China's great natural resources is necessary for the progress of the country, has adopted a policy of encouraging the promotion of industrial and manufacturing enterprises with either foreign or Chinese capital.

The leading foreign industries in this district are as follows:

Peking:
- Imprimerie de Pekin

Shanhaikwan:
- Crystal (Ltd.); aerated-water factory.

Taku:
- Taku Tug & Lighter Co.; docks and machine shops.

Tangku:
- Asiatic Petroleum Co.'s oil tanks.
- Etablissements de Tongku; shipbuilding, machine shops.

Tangshan:
- Kailan Brick and Tile Factory; clay, fire bricks, cement.
- Kailan Mining Administration; coal.

Tientsin:
- Belgian Brick Factory; bricks, tiles.
- Brossard, Mopin et Cie; shipbuilders, founders.
- Bulgheroni, A. C.; manufacturer, marble, cement works.
- Chung Tung Litho Works; printers.
- Collins Wool Cleaning Works.
- Commercial Press (Ltd.); printers.
- E. Tai; printers.
- Eastern Engineering Works; machine shops, foundry.
- Forbes Wool Cleaning and Pressing Works.
- Fuji Paper Mill Co.
- International Bicycle Co.; manufacturing jinrikishas.
- Karatzas Bros. & Co.; tobacco factory.
- Liddell Bros. Wool Cleaning Works.
- Mackenzie & Co.'s Wool Cleaning and Pressing Works; hydraulic press.
- Manufacture Céramique de Tientsin; bricks, tiles.
- Marzoli, E.; sandstone, cement works.
- Menga, C.; preparing hair and manufacturing hair nets.
- North China Printing and Publishing Co.
- Protopapas & Co.; tobacco factory.
- Salutaris Co.; aerated-water factory; Mackie & Co., agents.
- Show Hsing Flour Mill.
- Standard Oil Co.'s oil tanks and tin shops.
- Syndicat Industriel et Commercial; foundry, machine shops.
- Takeuchi's General Factory.
- Tannerie Franco-Chinoise.
- Tientsin Asbestos Co.
- Tientsin International Mineral Water Co.
- Tientsin Press (Ltd.); printers.
- Tientsin Tobacco Co.; manufacturers of cigars and cigarettes.
- Wilson & Co.'s Wool Cleaning Works.

The supplies of raw materials for these factories come from the interior, and the output is disposed of locally or abroad.

On January 1, 1919, an American flour milling company began operating its newly erected mill in the Russian concession, Tientsin. The company, incorporated in the United States, is capitalized at $100,000, with American and Chinese shareholders, Americans supplying the greater part of the capital. The output is 25 barrels or 100 sacks per day. The flour thus far finds its market in Tientsin, and sells at $2.30 to $3 local currency per 50 pounds. At present Honan wheat alone is used. The milling machinery is American, a kerosene engine furnishing the power. The Tientsin mill is the first in operation of a comprehensive system of mills to be erected by the company at various centers in North China, according to a scheme corresponding to the community mill project in the United States. The company plans later to engage in the pressing of bean oil and the making of macaroni.

An American concern has begun work on a new cold storage, meat packing, and egg albumen plant. The company will conduct as an adjunct thereto a modern slaughterhouse with stockyards. The site contains six acres and is located in the Russian concession, Tientsin. The plant is situated conveniently to both the railway and the water front. The total investment will be about $500,000. To begin with, the business will be chiefly cold storage and albumen and ice manufacture, but later it is expected to include the packing and canning of meats and poultry.

In the early part of 1919 a Japanese cigarette factory was in process of erection in Tientsin, and a Japanese company was building a plant for the extraction of oil from oil-bearing seeds.

It is anticipated that factories in many of the lines above indicated will be extended along the Peking-Hankow and the Peking-Suiyuan Railways, where they will be nearer the sources of supply of raw materials, such as iron, coal, wool, cotton, etc.

COMMERCE OF THE PORT: INTRODUCTORY SUMMARY.

The table below gives the total imports and exports, foreign and Chinese, through the Maritime Customs at Tientsin during the years 1904, 1913, and 1918:

Imports and exports.	1904	1913	1918
Imports of foreign goods:			
From foreign countries and Hongkong	$10,729,390	$37,488,637	$70,852,813
From Chinese ports	13,585,347	14,795,744	19,876,306
Total foreign imports	24,314,737	52,284,381	90,702,119
Reexports of foreign goods:			
To foreign countries and Hongkong	39,963	34,665	....
To Chinese ports	397,281	492,447	....
Total foreign reexports	437,244	527,112	2,648,065
Net total foreign imports	23,877,493	51,757,269	88,054,054
Imports of Chinese products	13,256,786	18,663,893	34,381,171

Imports and exports.	1904	1913	1918
Reexports of Chinese products:			
To foreign countries and Hongkong	$1,445,317	$380,405	...
To Chinese ports	9,814	231,111	...
Total Chinese reexports	1,455,131	611,516	$801,629
Net total Chinese imports	11,801,655	18,052,377	33,582,542
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	1,365,779	5,562,488	31,545,127
To Chinese ports	8,465,171	22,052,407	29,512,769
Total exports of local origin	9,830,950	27,614,895	61,057,896
Gross value of the trade of the port	47,402,473	98,563,169	186,144,186
Net value of the trade of the port	45,510,098	97,424,541	182,604,492

EXPORT TRADE.

The increase in the volume of exports from the Tientsin consular district during the past 15 or 20 years has been phenomenal in trade annals in China. The export trade has increased pari passu with the development of the native industries, and is largely due to foreign initiative. In the decade preceding the war there was a constantly growing demand abroad for the native products of this region, but the war has given the greatest impetus to the export trade. There has been a constant and increasing demand from Japan, Europe, and America for all the principal products, because of the enormous consumption of raw material required for the clothing and equipment of newly raised troops. The leading articles in demand have been wool, cotton, hides, and skins, used for clothing and footwear. Articles of local origin exported to America in large quantities are, in addition to those just named, bristles, straw braid, peanuts, walnuts, vegetable oils, etc. There was an increase of more than $10,000,000 in the value of exports to the United States during 1917, as compared with the preceding year, the total value of declared exports from Tientsin to this country having been $33,374,858 in 1917 against $22,752,013 in 1916. Exports to the United States in 1918 were valued at $29,890,600. The exports from Tientsin to the United States amounted in 1903 to only $3,700,000, and this sum represented an increase of over $1,500,000 above the previous year. The figures given do not represent the total value of exports from Tientsin to the United States, as many cargoes of products from this district are made up and shipped from Shanghai and Kobe.

Tientsin now ranks next to Shanghai in size and in the importance of its trade. It is virtually the great distributing point in North China for foreign goods and the depot for the collection of native produce destined for shipment abroad. Work is proceeding on land and water to extend its facilities as a commercial port. With the improvements to the Haiho and the Taku Bar, including the demonstrated possibility of keeping the river open in winter as far as Tangku by means of ice breakers, the accessibility of the port has been greatly enhanced for large and deeper-draft vessels. The extension of the railways has opened up new markets, tapping vast areas of production and consumption, whose nearest port is Tientsin; but in spite of the importance of the trade in foreign goods, the export business of Tientsin is distinctly the most significant and characteristic feature of the place and is commanding constantly growing attention from the local business houses.

The total values of the export trade for the years 1904, 1913, and 1918 show that it has increased more than fivefold, the figures for these years standing as follows: 1904, $11,286,081; 1913, $28,226,411; and 1918, $61,859,525. Improved means of communication, especially increased facilities for railway transport, have greatly contributed to this advance in trade.

Notwithstanding these increases, the export trade of this district since the outbreak of war has been hampered by the high exchange, as well as excessive freight rates, scarcity of tonnage, and the prohibition or restrictive regulation of imports by belligerent countries. Another factor operating against exports was the difficulty in bringing stocks from the interior because of internal disorders and floods. The unfavorable conditions for the exportation of local products have been, however, more than counterbalanced by an increased demand from abroad and a willingness to pay almost any price to obtain goods.

A noteworthy development of direct trade with foreign countries has taken place during the past decade. In earlier years the Tientsin market shipped the bulk of its exports to foreign countries through Shanghai agencies, and drew its supply of foreign goods mostly from Shanghai. But an ever-increasing number of ocean-going steamers have come to Tientsin, bringing and taking direct cargoes from and to America, Europe, and Japan.

As to methods of financing the export trade, the usual procedure is to purchase in the open market and to make payment as soon as shipping documents are obtained. The long interval between purchase and shipment, due to the distance of the interior points from the shipping ports (in some instances wool travels overland 50 days before reaching Tientsin), is financed by the comprador; but when the shipping documents and consular invoice are obtained, the shipper may secure advances upon the cargo from one of the foreign banks. The foreign firms make their purchases through the comprador, who employs experienced native agents in the various producing centers and through them makes judicious advances to the producers, thus securing contracts for forward delivery at prices appreciably below average market rates. The large Japanese firms have adopted the same system, except that the services of the comprador are dispensed with. This system is favored by many producers, as it insures a firm and reasonable price for their goods instead of prices arbitrarily fixed by the local chambers of commerce and the various trading guilds. Cash buying is of value not only for the immediate benefits derived from purchase, but for the impression it makes upon the natives, who are likely to sell more cheaply for cash to the foreigner, with his supposed abundant capital, rather than to accept the risks of even better terms from native dealers. If the foreigner has to ask for terms, both the moral effect and the advantage are lost.

STATISTICS OF PRINCIPAL ARTICLES EXPORTED.

The quantity and value of the principal articles exported (including reexports) from Tientsin to foreign countries and Chinese ports through the Maritime Customs during 1904, 1913, and 1918 are shown in the following table:

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Metals:						
Brass, old.........pounds..	([a])	([a])	123,333	$4,772	3,088,267	$490,132
Copper, old.........do....	....	....	....	....	197,200	33,356
Iron—						
Old..............do....	....	....	....	....	98,416,933	2,013,413
Pig..............do....	....	....	....	....	37,178,267	2,323,568
Beans, green.............do....	17,788,267	$186,364	17,055,333	224,308	15,264,400	382,099
Bones, refuse............do....	10,931,064	32,601	42,626,400	236,881	35,404,667	433,595
Bristles.................do....	1,993,864	705,568	2,434,000	1,410,405	2,702,000	2,595,339
Carpets..........{pieces.......	1,483	4,051	4,252	54,015	10,042	416,531
square feet..	....	....	21,580	6,338	9,965	7,743
Cement...............pounds..	....	....	7,217,200	33,352	....	568,066
Chestnuts................do....	846,132	10,782	3,620,933	99,730	3,482,267	140,209
Cotton, raw..............do....	1,412,932	117,170	44,851,200	5,915,548	43,650,880	12,702,217
Egg albumen and yolk, preserved, moist.......pounds..	....	....	[b] 105,733	[b] 4,839	12,533	3,762
Egg yolk:						
Preserved, dried.....do....	....	....	[c] 596,533	[c] 29,002	1,176,000	356,074
Preserved, moist.....do....	....	....	....	....	172,533	23,463
Eggs, fresh...........number..	1,517,500	4,006	74,645,270	409,772	64,123,044	478,117
Feathers, duck, fowl, etc., pounds....................	91,464	4,255	204,686	58,274	82,800	17,853
Fibers:						
Hemp............pounds..	86,532	5,140	577,600	40,686	5,301,867	652,279
Jute.................do....	4,624,932	94,170	10,590,933	433,325	5,841,600	295,313
Groundnut pulp.........do....	....	....	1,669,600	51,719	4,321,600	219,182
Groundnuts.............do....	33,066,800	448,621	3,043,867	72,185	1,592,000	47,007
Hair:						
Goats'...............do....	94,132	2,662	163,867	15,172	187,067	37,063
Goats', refuse........do....	....	....	128,800	5,527	136,400	12,983
Horse mane..........do....	796,264	136,113	952,800	116,585	574,133	127,008
Horse tails...........do....	....	....	540,133	160,339	425,200	210,457
Human..............do....	30,932	5,354	567,733	54,127	676,933	83,511
Hides:						
Cow and buffalo......do....	1,369,332	148,781	3,591,200	679,135	1,809,200	679,888
Horse and ass........do....	88,664	9,793	1,074,533	136,141	2,305,200	506,802
Intestines:						
Pig..................do....	....	....	1,633,923	93,802	422,533	128,547
Sheep................do....	194,606	5,807	96,671	5,583	84,000	25,568
Licorice root.............do....	....	....	....	....	6,063,733	685,244
Medicines...............do....	8,137,864	379,407	7,985,867	498,074	6,387,867	696,379
Oil:						
Castor...............do....	....	....	3,733	204	4,548,800	437,529
Groundnut..........do....	359,464	10,231	375,467	16,023	2,203,067	221,760
Samshu..................do....	4,325,464	141,693	14,426,667	523,677	5,139,200	298,889
Samshu, medicated......do....	3,801,064	150,506	7,264,533	363,571	3,665,067	299,758
Seed:						
Cotton...............do....	....	....	18,191,333	127,290	7,321,467	97,276
Linseed..............do....	....	....	27,265,200	436,258	12,581,467	393,178
Rape.................do....	....	....	30,877,867	460,621	14,044,533	443,504
Skin (fur) clothing:						
Kid crosses—						
Black..........pieces..	....	....	53,097	65,799	66,391	107,426
Colored..........do....	....	....	17,491	13,388	78,573	95,335
Lamb—						
Coats, Tibet.....do....	....	....	7,827	65,996	17,839	290,286
Crosses—						
Mongolian...do....	....	....	29,073	59,570	5,077	24,663
Slink........do....	....	....	46,705	54,829	63,527	171,280
Tibet........do....	....	....	2,824	20,966	....	....
Skin (fur) mats, dog......do....	88,145	17,608	511,801	266,383	544,429	587,641
Skin (fur) rugs:						
Goat—						
Black, gray, and white, pieces..............	902,549	548,461	....	....	....	....
Black..........pieces..	....	....	32,938	23,753	154	208
Gray............do....	....	....	154,301	135,698	38,460	56,331
White...........do....	....	....	73,401	63,559	25,452	37,742
Sheep.............do....	557,222	88,096	43,331	34,007	14,359	21,298

[a] Unenumerated. [b] Albumen, dried. [c] Yolk, dried.

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Skins (furs):						
Fox—						
Large..........pieces..	22,412	$54,442	92,939	$339,873	18,908	$126,286
Tails.............do....	60,572	6,009	26,512	2,581	38,763	10,804
Goat—						
Tanned—						
Black, gray, and white....pieces..	344,650	122,098	....	....	814,906	987,477
Black........do....	....	....	158,678	77,061	64,436	73,178
Gray.........do....	....	....	496,487	246,524	622,755	755,577
White........do....	....	....	95,766	47,590	127,715	153,723
Untanned.......do....	1,841,137	532,662	2,622,296	826,477	2,481,876	1,526,018
Lamb, Tibet......do....	....	....	301,424	259,616	89,296	120,378
Marmot.............do....	217,575	18,139	207,784	34,282	405,750	109,667
Sheep, untanned...do....	367,198	95,623	271,973	67,196	655,900	482,638
Straw braid:						
Mottled...........pounds..	2,084,800	835,394	355,200	72,382	3,799,067	1,572,138
White...............do....	1,319,332	277,555	661,333	266,671	1,757,467	1,199,026
Tallow, animal............do....	....	....	2,447,600	147,407	3,330,533	424,650
Tea.......................do....	3,222,533	509,259	1,303,600	215,915	403,200	116,337
Tea bricks................do....	31,546,532	851,716	3,338,000	137,615	621,800	69,153
Tea, coarse...............do....	1,080,400	106,960	688,267	35,120	....	....
Walnut kernels...........do....	471,332	23,341	1,180,000	55,516	2,475,867	263,437
Walnuts in shell.........do....	1,025,064	25,436	6,341,333	142,052	3,178,933	160,377
Wool:						
Camels'.............do....	2,748,600	239,415	8,728,867	547,948	5,929,467	2,179,628
Goats'..............do....	466,400	59,620	1,421,067	260,397	1,552,400	504,062
Sheep's.............do....	28,672,800	2,006,565	29,558,400	4,397,930	37,927,333	4,416,966
All other articles............	....	2,755,608	....	6,456,025	....	8,620,469
Total net value..........	....	11,286,061	....	28,226,411	....	61,860,526

GREAT ADVANCE IN SHIPMENTS OF RAW COTTON.

The outstanding feature of the export trade is the great advance made in the shipments of raw cotton. Prior to 1909 the amount of cotton exported from Chihli and a part of Shantung, Honan, and Shansi did not exceed 530,000 pounds. In the year mentioned it increased 3,300,000 pounds, and since then has been increasing until in 1918 it reached 43,650,880 pounds. This is attributed to the high price of American cotton and to the strong demand in Japan; but the increased production is mainly due to the substitution of cotton for poppy cultivation. Generally speaking, cotton produced in North China is short in fiber and stiff. Shipments are made chiefly to Japan, Shanghai (for transshipment abroad), America, and Hongkong.

The following are the principal places that supply Tientsin with cotton: Shantung Province—Lintsingchow, Techow. Honan Province—Wuanhsien, Changtehfu. Chihli Province—Chengtingfu, Chaochow, Shuluhsien, Paotingfu, Kwangpingfu, Kichow, and Yungpingfu.

MISCELLANEOUS EXPORTS OF IMPORTANCE.

Sheep's wool is one of the most important exports, and the business therein is constantly increasing. This product is now not only used for coarser manufactures, such as carpets, but the finer grades are being employed in the manufacture of clothing. There is also a large demand abroad for camels' wool. Tibet lambskin crosses have been for many years one of the largest articles of export from this port. The world's demand for lubricants is seen in the largely increased export of oils and of oil-bearing products, such as beans (including the castor bean), peanuts, sesame seed, apricot kernels, and walnuts. There are also shipped yearly large quantities of cotton seed, linseed, rapeseed, and lard, and there is every prospect of continued increase in these lines. Other leading items of export are carpets and rugs, and pig's intestines. The principal buyers of seeds are the Japanese. Since the war there has been a constantly increasing export of peanut oil to the United States, and walnut oil and castor-bean oil were first exported thence in 1917. Walnut oil is chiefly exported to France, where it is used as a substitute for olive oil. There is a good demand abroad for Tientsin carpets and rugs, but after an exceptionally successful year in 1916 the weavers and dealers attempted to substitute an inferior article for the one stipulated for. This was soon detected by the foreign buyers, with the result that large quantities of the inferior articles were thrown back upon the owners' hands, resulting in the closing down of many of the Chinese carpet dealing and weaving firms. Shelled peanuts have a large market abroad, but the unshelled variety can not be handled with profit owing to high freight rates. Shipments abroad of hemp and jute fibers, as well as of horsehair, have decreased in recent years, mainly because of the high freights. For several years there has been a demand in Japan for old brass and copper, as well as old iron in any form; this district is being systematically searched and every article of the kind procurable is being shipped to Japan.

Of the newer commodities on the export list two that give hope of future increase are licorice and asbestos. The trade in the former has been steadily growing since its introduction a few years ago, and judging by the capital now invested in this business, licorice is likely to become a permanent export. Asbestos from abroad being forthcoming in only limited quantities, a demand for the native article arose. Large quantities were shipped to other ports of China and exported abroad, and there is every likelihood that the exportation of this article will increase. It is chiefly manufactured by the Tientsin Asbestos Co., which makes it by foreign process.

FURS AND SKINS.

Among the leading articles of export from this district are furs and fur skins. Large quantities of goatskins and sheepskins are exported annually to the United States. Previous to the war London was the chief skin and fur market of the world, but since the outbreak of hostilities the principal market has been the United States. The origin of these commodities is difficult to state, but Kalgan is a very large accumulating depot for furs and skins. not only from Mongolia but also from other parts of North China, that eventually find an outlet at Tientsin. An approximate statement as to the percentage originating in the various sections of the district follows:

Kid-skin crosses.—75 per cent from Chihli and Honan, 25 per cent from Kalgan, the Kalgan cargo being of Mongolian origin so far as the skins are concerned, but dressed in Kalgan.

Lambskin crosses.—50 per cent from Chihli, Honan, and Shansi, and 50 per cent from Mongolia.

Lambskin crosses, slink.—All from Chihli, Honan, and Shantung.

Lambskin crosses, Tibet.—The skins from which the crosses are made originate in Kansu, but the goods are dressed and made into crosses chiefly in Shansi, though a few are made in Chihli and Honan.

Sheepskin crosses and coats.—Of Mongolian origin.

Lambskin coats.—50 per cent from Mongolia, the remainder from Chihli, Honan, etc.

Dogskin mats.—85 per cent from Chihli and 15 per cent from Manchuria; fully half of the skins from which the mats are made are Manchurian.

Goatskin rugs.—90 per cent from Mongolia and 10 per cent from Chihli.

Sheepskin rugs.—Of Mongolian origin.

Fox skins and foxtails.—Approximately 25 per cent from Mongolia, 50 per cent from Chihli, Kansu, Shansi, etc., and 25 per cent from Manchuria.

Goatskins, tanned.—95 per cent from Mongolia and 5 per cent from Chihli.

Lambskins (*Shuntehfu, Kalgan, and Mongolia*).—50 per cent from Mongolia and 50 per cent from Chihli, Honan, Shansi, etc.

Lambskins, slink.—From Chihli, Honan, and Shantung.

Lambskins, Tibet.—These skins originate in Kansu, but are dressed chiefly in Shansi, a few being dressed in Chihli.

Marmot skins.—All from Mongolia.

Sheepskins, tanned.—All from Chihli.

Weasel skins.—75 per cent from Chihli and Shantung and 25 per cent from Manchuria.

PREPARATION OF SKINS—CLEANING AND PACKING OF WOOL AND BRISTLES.

The skins, wool, and bristles shipped from Tientsin do not arrive there in their original condition but have undergone a greater or less degree of tanning and cleaning. The hard water at Tientsin gives very unsatisfactory results, especially in the case of the more delicate skins. Therefore skins in their crude condition and covered by an outward transit pass are carried to the two great tanning centers—Kalgan for goatskins and Kiaochenghsien, near Taiyuanfu, for lambskins. Goatskins, after being sorted, are sewed together into rugs, and then brought down to Tientsin. The sewing up of skins and furs into robes and crosses is effected in the interior and forms an industry amounting to about $3,000,000 a year. Wool is brought down, roughly packed, to Paotowchen, Kalgan, and other packing centers, where it is sorted, cleaned, and properly packed before proceeding to Tientsin. The same happens in the case of bristles, which are brought down—principally from Manchuria—in their crude state to Fengjunhsien, near Tangshan, to be cleaned, sorted, repacked, and sent to Tientsin. Upon arrival there these products, as a rule, undergo still further treatment preparatory to shipment abroad. The wool and cotton are again cleaned and the skins, hides, and bristles again sorted, after which all are repressed and repacked in the hydraulic-press packing factories maintained by many of the larger exporting firms of Tientsin.

PRODUCING CENTERS OF PRINCIPAL EXPORTS.

The producing centers of the main articles of export are substantially the following: Wool, furs and skins, and horse and goat hair come from the northwestern part of the district, Kweihwacheng, Paotowchen, and Kalgan; hides, cotton, and seeds from the southern part, Shuntehfu, Shihchiachwang, Changtehfu, etc.; and walnuts, peanuts, etc., from the eastern part, Tsunhwachow and Lanchow. As all these places are located either on a railway or a waterway, it is easy to transport the goods collected to Tientsin.

DECLARED EXPORTS TO UNITED STATES.

The table following shows the quantity and value of the articles declared at the Tientsin consulate general for exportation to the United States and its possessions during the years 1917 and 1918.

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO UNITED STATES.				
Apricot kernels...pounds	221,440	$10,933		
Beans...do	416,898	26,172	25,082	$2,217
Bristles...do	1,629,707	1,588,054	1,801,772	2,365,633
Carpets:				
New...square feet	714,312	762,012	325,930	333,117
Old		3,543		2,662
Cotton...pounds	14,484,695	2,871,711	4,160,276	1,359,642
Curios		218,806		34,528
Egg albumen...pounds	306,518	258,872	99,396	82,704
Eggs:				
Dried whole...do	500	356		
Fresh...number			36,000	1,147
Egg yolk...pounds	411,488	123,473	2,995	1,943
Feathers and down...do	119,994	28,464	59,304	11,819
Fiber, vegetable...do	91,262	13,924		
Glassware				865
Hair:				
Goat...pounds	195,507	48,747	36,173	37,629
Goat beards...do	14,813	4,003	1,120	789
Cattle...do	347	2,647		
Horse...do	403,777	274,186	420,091	253,888
Human...do	206,225	81,079	423,412	162,762
Nets		21,986		25,498
Hemp...pounds	470,220	88,592	289,301	61,556
Hides:				
Ox and cow...do	1,320,732	499,537	93,388	37,674
Horse and pony...do	436,421	152,057	2,451	10,679
Household goods and personal effects		5,949		6,233
Intestines:				
Pig		139,640		93,987
Sheep		197,902		81,277
Jute...pounds	1,234,418	91,800	304,857	30,105
Lace				177
Lanterns, Chinese		145		47
Lard...pounds	22,800	3,933	45,600	9,772
Licorice root...do	5,020,121	443,478	3,755,848	410,010
Nuts:				
Peanuts...do	4,603,845	324,778	143,000	21,094
Walnuts...do	2,830,646	493,239	1,183,640	339,718
Oil:				
Castor...do	95,274	15,923	267,352	64,084
Linseed...do			4,522	1,028
Peanut...do	111,888	14,067	141,859	24,116
Walnut...do	3,079	1,257		
Peas...do	84,000	5,674		
Platinum dust...ounces			210	24,297
Seeds:				
Flax...pounds	9,600,000	415,380		
Linseed...do	400,000	15,678		
Mustard...do	200,000	9,226	129,200	10,359
Rape...do	424,800	20,115	107,440	7,426
Silk				19,891
Silk clothing and embroideries		25,397		
Skins, furs, mats, and robes:				
Antelope...pieces	23,033	12,409	3,113	1,733
Calf...do	22,185	12,291		
Cat...do			200	412
Deer...do	247	286	10	7
Dog...do	232,775	207,111	450,468	578,965
Ermine...do			230	1,925
Fox...do	10,969	49,607	31,860	110,800
Goat...do	4,765,290	5,563,201	2,040,546	2,268,324
Kolinskies...do	32,303	26,764	18,478	29,861
Lamb...do	5,605	93,862		
Marmot...do	22,540	8,439	209,318	111,359
Rabbit...do	199	73	6,000	1,638
Raccoon...do	3,498	13,117	15,335	57,858
Sable...do			151	9,488
Squirrel...do			129,467	58,329
Sheep...do	1,935,702	2,276,654	510,823	639,963
Slink...do	79	468		
Stone marten...do			85	1,138
Wolf...do	388	2,013	1,000	8,068
Other, unclassed		5,575		
Specimens, natural-history		10,189		1,080
Straw braid		3,149,088		4,606,941

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO UNITED STATES—continued.				
Tails:				
Fox...pieces..	2,940	$1,564	12,073	$10,708
Horse...pounds..	40,640	9,802	52,200	36,525
Squirrel...	...	3,459	...	852
Yak...pounds..	2,739	3,784	39,411	22,780
Tallow, animal...do....	...	...	52,369	11,537
Tungsten...do....	...	...	1,833	911
Wool:				
Camel...do....	2,050,135	1,021,208	1,363,232	897,879
Goat...do....	...	...	256,647	147,254
Sheep...do....	24,700,186	11,580,882	35,049,272	14,341,073
All other articles...	...	20,277	...	3,364
Total...	...	33,374,858	...	29,890,600
TO PHILIPPINE ISLANDS.				
Carpets...square feet..	...	...	356	315
Cement...barrels..	112,227	262,578	21,170	108,622
Coal and coke...tons..	64,578	235,005	94,480	446,003
Fire bricks...do....	3,069	5,963	11	171
Fire clay...do....	107	1,096	1	12
Paper...	...	400	...	...
Glazed tiles...square yards..	72	243	...	...
Total...	...	505,285	...	555,123
TO HAWAIIAN ISLANDS.				
Carpets and curios...	...	2,774	...	1,013
Silk...	...	663	...	...
Total...	...	3,437	...	1,013

For purposes of comparison the following table is given, showing the value of the declared exports from Tientsin to the United States during the year 1913, the last normal year before the beginning of the war:

Articles.	Value 1913.
TO UNITED STATES.	
Beeswax...	$1,085
Bristles...	745,663
Carpets and rugs...	68,314
Cotton...	973,753
Curios...	63,386
Hair:	
Horse...	102,118
Human...	25,973
Hides:	
Cow...	104,478
Horse...	17,489
Household goods and personal effects...	20,349
Intestines, sheep...	38,600
Jute...	87,494
TO UNITED STATES—continued.	
Nuts:	
Peanuts...	$24,102
Walnuts...	141,133
Porcelain...	12,696
Skins, furs, mats, robes, etc.:	
Calf...	1,560
Dog...	332,377
Fox...	22,648
Goat...	1,351,134
Kolinskies...	2,488
Lamb...	65,066
Marmot...	12,215
Rabbit...	5,054
Sheep...	170,145
Other...	3,860
TO UNITED STATES—continued.	
Silk clothing and embroideries...	$1,304
Spirits, Chinese...	386
Straw braid...	45,203
Wool, sheep...	3,896,031
Yak tails...	801
All other articles...	6,262
Total to United States...	8,343,167
Exports to Philippine Islands...	207,009
Exports to Hawaii...	20,035

IMPORT TRADE.

The import trade of Tientsin showed a remarkable growth in the first years after the Boxer troubles of 1900, and this favorable condition has been well maintained in spite of numerous difficulties. The import trade received a severe setback in 1907 as a result of overtrading. In that year the price of silver suddenly dropped, while that of commodities went up, the general purchasing power thereby being greatly reduced. A great blow was thus given to imports as well as to exports. Moreover, Chinese merchants were compelled to suspend payments to foreign firms, the amount involved being 14,000,000 taels for goods they had purchased on credit when the market was booming. The following year, 1908, witnessed another setback, due to political unrest caused by the death of the Emperor and Empress Dowager. The local authorities and the banking circles took steps for relieving the stringency of the money market, and it was decided that various prominent native banks with Government support should loan amounts needed to pay the obligations to foreign merchants. These remedial measures were effected in 1910. Another vexatious question was that of deteriorated "hua-pao" silver, which for several years had caused great inconvenience in commercial transactions. In 1910 the local authorities agreed to make good the value of the debased silver held by the foreign banks. Conditions were about restored to normality when the revolution of 1911–12 suddenly occurred, with an attending state of lawlessness in the surrounding country. Trade and credit again collapsed, and several years passed before business became flourishing. Still another question that affected the economic circles of Tientsin and that had been under litigation for many years was the financial complications of the salt merchants, which involved their insolvency. They had frequently borrowed from the foreign banks. These liabilities were raised in 1911 by a loan from the Ta Ching Bank for 7,000,000 taels under security of the salt controller.

Generally speaking, during the past decade good crops, coinciding with ready markets and high prices for farm produce, have greatly increased the well-being of the rural population. Furthermore, the opening up of Shansi and Mongolia increased the demand for foreign goods, which had a good effect on the import trade. But the remarkable expansion of the export trade has been the most important feature in the commercial development of this region, as it has increased the purchasing power of the natives generally and brought about a greater consumption of foreign goods. Other factors contributing to the development of the import trade were improved transportation and distribution facilities, and a generally more favorable attitude toward foreign goods than had existed before 1900. Though foreign goods are in more general use, there have been no radical changes in native customs and habits. Except among the official class and the more progressive merchants in the treaty ports, there is little indication as yet of any tendency on the part of the mass of the people to adopt foreign-style clothing, though foreign-style hats have undoubtedly come to stay. The demand for housing accommodations in the foreign concessions of Tientsin is growing, especially from the better-class Chinese; and as the demand exceeds the supply rents remain high. Building operations do not diminish in spite of the war's having advanced the cost of many materials. The price of land in the concessions is constantly rising, and ground which five years ago might be bought for $500 a mow (or one-sixth of an acre) now brings $3,000.

The shipping facilities in the ports of the district are satisfactory. Goods can be imported and distributed throughout the year. Tientsin is open to steamer trade for about nine months of the year, and when the port is closed in winter Chinwangtao serves as the entrepôt for foreign goods.

The methods of financing import business are similar to those obtaining with respect to exports, which have already been described.

Coolie hire in connection with the discharge of cargo is computed at about 2 cents per parcel, if the package is within a man's carrying power. In the import as in the export trade foreign merchants generally employ compradors to arrange business deals. The agreement between the import and export house and the comprador usually provides that the latter shall deposit $20,000 as security. The foreign merchant, on his part, obligates himself to pay, in addition to the allowance for the comprador's office, 2 per cent commission on all sales made through the comprador, as well as interest on the security deposited by the comprador, usually at the rate of 6 per cent per annum. The comprador is responsible for losses incurred through bad accounts. The Japanese transact business without a comprador, but generally more satisfactory results are obtained by following the comprador system.

IMPOSITION OF INTERNAL TAXES.

In disposing of goods to centers in the interior, Tientsin is conveniently located. There are numerous railways and waterways and the transshipping charges thereon are reasonable. A serious impediment to trade in the interior, however, is the imposition of internal taxes on goods in transit and at destination. All goods, foreign and native, even though covered by transit pass, are taxed whether carried by rail or water. Likin charges are levied at the numerous barriers en route, and an additional tax is imposed at the point of destination. In December, 1906, an effort was made to reform the system of inland taxation. The old multifarious likin taxes in Chihli were to be abolished, and in their stead were to be introduced a production tax and a destination tax. The attempt to get rid of the likin taxes failed, but the two taxes designed to replace the others have nevertheless become established. The former (production tax) is levied at the rate of 1½ per cent ad valorem on all kinds of native produce originating in the Province, the latter (destination tax) on foreign and native goods alike at the rate of 2 per cent ad valorem at the place where the goods are disposed for sale. The destination tax is not levied on grain, and only where it is stored for transport is a production tax of 1 per cent charged. The prices are fixed in a value list drawn up annually. There are some other special taxes, such as those on salt, wine, tobacco, opium, timber, plants, carts, live stock, pearls, and precious stones.

The lotishui, or destination tax, is perhaps the most common and vexatious of the internal taxes in the district. It is often excessive, and foreign merchants complain that as a result of these charges the prices for their products must be increased to an amount that tends to retard their business. The provincial authorities contend that foreigners should pay these taxes and then recover them in the prices charged the consumer; in that way, it is claimed, the taxes really fall not on the foreigner but on the native consumer. The foreign governments concerned have declined to recognize the validity of these inland levies, and the subject is continually in dispute between the Chinese authorities and the foreign consuls.

River dues are levied at Tientsin at the rate of 4 per cent of the import or export duty levied. In the case of goods arriving under exemption certificates from other ports in China the river dues leviable are 4 per cent of the duty paid at the port that issued the exemption certificate. Transit duty is levied on foreign goods being sent to the interior, and amounts to half of the import duties already paid. It is at the option of foreign and native merchants to clear foreign imports to an inland market by payment of a transit duty or by payment of the different charges demanded at the inland customhouses or likin stations. These charges generally amount to 1½ per cent at each inland station passed, but no definite information can be given as to the amount of inland duty to which foreign goods not covered by a transit pass may be subjected.

STATISTICS OF FOREIGN GOODS IMPORTED.

The total value of foreign goods imported for the years 1904, 1913, and 1918 shows that it has nearly quadrupled, the statistics being as follows: 1904, $23,877,493; 1913, $51,757,269; and 1918, $88,054,054. This great advance in trade is to be attributed chiefly to the enhanced purchasing power of the people, and to the extended and improved means of communication, which have opened up vast regions to modern development.

The following table shows the quantity and value of the principal foreign articles imported at Tientsin through the Maritime Customs during 1904, 1913, and 1918:

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
COTTON GOODS.						
Shirtings:						
Gray, plain........pieces..	540,872	$880,886	472,228	$1,015,587	163,586	$885,281
White, plain.........do....	221,674	584,225	615,443	1,886,477	191,615	1,328,018
Sheetings, gray, plain....do....	798,482	2,178,632	1,520,497	4,099,178	572,533	3,281,224
Drills......................do....	373,789	911,380	959,616	2,657,929	417,554	2,326,129
Jeans......................do....	77,940	149,363	155,768	393,653	166,033	940,468
T-cloths..................do....	192,477	228,537	278,428	598,836	307,786	1,146,188
Cambrics, lawns, and muslins, white...............pieces..	19,868	16,412	93,341	43,265	27,683	83,730
Printed cotton: Chintzes, plain cotton prints, and printed shirtings.............pieces..	146,477	353,857	385,886	489,044	196,898	956,017
Dyed cotton:						
Italians, plain; venetians, plain; sateens; poplins; italians, figured; poplins; figured; drills; cambrics, lawns, and muslins; Turkey red T-cloths, cambrics, and shirtings; shirtings and sheetings; cotton flannelettes; cotton blankets, etc.....pieces..	347,507	850,979	659,940	1,483,306	724,291	4,860,884
Cotton goods, unclassed..yards..	59,909	5,286	1,608,316	102,447	1,205,436	221,725
Velvets and velveteen...do....	49,703	9,880	309,375	62,035	435,660	216,308
Handkerchiefs, all kinds..dozens.	31,033	8,139	129,390	28,133	83,846	49,449
Towels, all kinds.........do....	165,093	44,087	315,194	75,944	182,578	963,982
Cotton yarn..........pounds..	19,744,289	2,441,513	49,422,267	6,983,129	32,688,999	13,519,110
Cotton thread on spools, 100 yards.................gross..	41,515	75,670	127,023	171,545	62,419	229,285
Cotton thread, unclassified pounds........................	(a)	(a)	24,267	11,190	64,133	30,544

a Unenumerated.

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
WOOL AND COTTON.						
Mixtures, all kinds		$55,119		$307,122		$285,401
Woolen goods, all kinds		141,214		152,559		223,081
Berlin wool...pounds	45,332	55,607	96,267	62,046	10,533	26,058
MISCELLANEOUS PIECE GOODS.						
Canvas, cotton duck, and hessian cloth...yards	202,592	14,108	1,261,249	166,060	601,603	101,849
Plushes and velvets...pounds	17,504	38,655	33,006	42,800	16,193	79,058
Silk piece goods...do	5,236	44,258	46,391	118,545	32,012	96,206
METALS AND MINERALS.						
Iron and mild steel, new and old, and lead, in pigs and bars...pounds	21,508,800	382,361	45,120,133	808,795	19,248,734	1,597,747
Tinned plates, plain...do			9,005,867	330,851	7,995,067	839,831
SUNDRIES.						
Acid, boracic...pounds			6,667	430	2,667	896
Bags, gunny, new and old pieces	125,255	9,045	1,837,721	139,776	753,000	88,689
Buttons, brass and fancy...gross	198,445	76,251	166,660	54,821	164,991	84,468
Candles...pounds	381,200	30,476	874,000	53,594	1,268,2[illegible]7	192,913
Cereals: Rice...do	593,200	11,011	41,184,133	970,001	12,355,200	645,761
Chemical products		13,276		31,638		36,033
Chinaware, coarse and fine pounds	330,668	28,193	701,600	34,769	1,237,734	154,461
Cigarettes, first and second quality...mille		245,445	1,056,450	1,498,051	1,344,394	4,274,794
Dyes, colors and paints...pounds	1,635,332	511,408	5,474,000	745,432	1,919,066	415,222
Dyes, aniline				868,543		136,177
Electrical materials, fans, lamps, and unclassed		25,774		210,680		542,344
Enameled ironware:						
Basins...dozen	2,395	8,274	38,103	88,091	37,684	125,729
Other kinds				25,584		50,613
Flour				385,187		37,442
Fruits and vegetables, preserved in tins...dozen	5,981	8,160	27,039	32,388	19,728	55,517
Gas plant and fittings	4,563	4,563		10,126		147,617
Glass plates, silvered; and window, common		28,296		185,102		349,870
Graphophones and accessories		3,598		25,825		17,109
Haberdashery and millinery		30,173		346,700		269,044
Hardware		58,650		145,885		244,391
India-rubber tires		2,665		58,331		102,908
Isinglass, vegetable...pounds	85,068	28,633	88,933	24,048	42,400	30,350
Leather: Calf, kid and colored; cow; harness; sole; and unclassed...pounds	341,600	92,454	1,505,600	529,324	2,262,266	1,560,650
Machinery: Cotton-mill; printing; propelling (as boilers, turbines, etc.); parts of		93,840		328,005		745,268
Match-making materials pounds			5,270,667	141,131	10,595,467	656,625
Matches: Wood, safety, or other; Japanese...gross	4,102,496	589,330	3,154,136	457,812	1,521,363	453,747
Medicines...pounds	445,732	24,494	686,533	43,339	731,600	79,416
Medicines...value		49,239		156,588		310,448
Milk, condensed, in tins...dozen	16,451	13,842	67,766	80,139	47,008	100,946
Oil:						
Engine, mineral; kerosene, American, Sumatra, Japanese, in bulk and case, gallons	8,392,052	2,761,331	27,656,812	2,719,074	21,660,591	6,475,103
Castor, lubricating, gallons			185,600	4,410		239
Paper:						
Printing, calendered and sized...pounds	6,457,902	280,347	572,533	22,350	119,333	14,948
Printing, calendered and sized, Japanese...pounds			194,800	8,383	226,400	28,552
Printing, uncalendered and unsized...pounds			5,156,400	142,850	433,733	40,826
Printing uncalendered and unsized, Japanese pounds			3,666,067	105,973	6,794,133	655,929
Wall		10,194		19,430		24,641
Writing...pounds			118,933	9,670	214,400	41,666
Other kinds...do			13,356,533	425,718		596,202

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
SUNDRIES—continued.						
Railway materials		$1,376,412		$1,788,611		$969,004
Soap:						
Bar.....pounds	1,602,400	67,900	1,811,467	87,772	4,459,733	408,361
Toilet and fancy		57,355		104,518		194,485
Socks, cotton, first and second quality.....dozens	2,670	1,738	97,587	62,707	95,223	92,619
Soda, ash.....pounds	1,501,332	22,443	13,028,267	146,226	4,282,533	237,908
Stationery		37,743		135,043		161,864
Sugar: Brown, white, refined, candy.....pounds	55,959,200	1,400,133	114,552,400	3,149,483	121,853,600	7,769,997
Timber: Beams and logs:						
Softwood.....square feet	3,765,083	77,444	10,195,481	177,880	2,189,972	94,054
Hardwood and teakwood.....cubic feet	20,896	8,253	767,950	207,206	1,541,683	885,302
Timber:						
Piles and poles.square feet	[a] 56,002	61,432	8,605,578	188,461	20,342	971
Planks, softwood....do			15,272,602	266,461	2,538,429	109,021
Railway sleepers...pieces			489,885	384,475	194,310	419,158
Vehicles:						
Motor cars, and parts of				71,268		474,072
Railway carriages and wagons, and parts of				141,267		524,061
Watches.....number	21,063	57,813	12,488	12,341	661	1,549
Wine, beer, spirits, etc., in bottles.....dozen quarts			701	906	115,004	397,806
All other articles		6,204,724		11,741,868		21,254,675
Total net value		23,877,493		51,757,269		88,054,054

[a] Pieces.

INFLUENCE OF WAR ON IMPORT TRADE.

The import trade of this district since the beginning of the war has increased with Japan and the United States. With all other countries, especially those in Europe, it has decreased, owing chiefly to restrictions in production, exportation, and transportation. Generally speaking, since the war tonnage on the Pacific has been adequate for the needs of the trade. The import trade of Germany and Austria with the district has entirely ceased.

A favorable condition, affecting the import trade since the beginning of the war, is the high exchange value of silver. This advantage, however, has been offset to a considerable extent by the greatly increased prices of practically all commodities, due to the high cost of production abroad and to the high freight rates that have had to be paid in order to bring them to China. Another adverse factor is the scarcity of tonnage.

ARTICLES MOST URGENTLY NEEDED.

The development of Chinese industries has led to a demand for imported machinery. The manufacturers are in need of machinery for factories, mills, and mines. The Chinese Government requires foreign machinery to develop the railways, arsenals, mints, dockyards, and leather factories. Recently Chinese firms have ordered machinery and plant from America for two cotton mills in Tientsin. It is likely that orders for other mills will follow.

The most urgently needed articles for the Tientsin district after the war will include, of course, the staple American imports into this district—namely, kerosene, sewing machines, condensed milk, canned goods, packing-house products, certain of the finer grades of cotton fabrics, electrical machinery and fittings, structural steel, railway plant and material, and lumber. Other articles for which there will be an urgent, though limited, demand are paper, glass, chemical products, aniline dyes, stoves and grates, worsted and other woolen goods, leather and leather goods, soap and other toilet articles, medicines, hardware, metals, galvanized iron, roofing and flat sheets, enameled ware, ironware, and tobacco. In this category also belong machine tools for engineering, carpentry, iron forges, and bicycle and motor-car works, as well as hand machines for sewing, printing, knitting, hat making, grain cleaning, washing, and pumping. There will also be an appreciable demand for automobiles, bicycles, typewriters, furniture, agricultural implements, industrial machinery, knitting machines, mining and smelting apparatus, and other articles that usually find markets in a region of vast potentialities newly opened to modern development and foreign exploitation. Among articles for which there will be a constant demand, though not one of urgency, are watches and clocks, jewelry, graphophones and accessories, photographic materials, mirrors, wines, candles, lamps and lampware, clothing, hats, hosiery, and boots and shoes. The United States already participates to a considerable extent in supplying these lines, which offer a favorable field for extension. The chief competitors of the United States in the postwar trade of this market will be the countries of northern Europe and Japan. In many of these articles both Japan and certain of the European countries are ahead of the United States, so that in those lines Japanese and European products rather than American will supply the trade. The leading lines in which Japan has to a great extent replaced American and European goods in this market are piece goods, chemical products, electrical materials, paper, and, to a limited extent, manufactured dyes.

The most hopeful direction in which American manufacturers may look to overtake their European competitors would seem to be in the supply of electrical, railway, and mining materials, iron and steel manufactures, and, perhaps, at the end of the war, arms and munitions.

SHIPPING FACILITIES FOR TRADE WITH UNITED STATES.

Tientsin, situated at the junction of the Peiho and the Yuho, or Grand Canal, about 47 miles from the coast at Taku, is by far the leading port of the district. Taku to the southeast at the mouth of the Haiho is the port of Tientsin for large ocean-going steamers, and Chinwangtao to the east is Tientsin's auxiliary port in winter. With the extensive conservancy work carried on by the Haiho Conservancy, including the use of three ice breakers for the purpose of permitting navigation at the mouth of the Peiho to continue as far as possible into the winter (experience has shown that it is feasible to keep the bar channel open in normal winters), the shipping facilities of Tientsin are adequate for the needs of the port.

The port of Chinwangtao owes its existence to the Kailan Mining Administration. It is situated on the western coast of the Gulf of Liaotung, about 10 miles distant from Shanhaikwan. It is thus the natural distributing center for the northwestern part of Chihli. The bulk of the North China coast trade is attracted to the Peiho during the open season, but in winter, when the river throughout its whole course to Tientsin becomes impassable because of ice, the whole of the northern trade is conducted through the ice-free port of Chinwangtao. This port, with its splendid facilities, may be expected to attract more and more of the deep-sea shipping between the United States, Europe, and North China at all times. The breakwater, 1,950 feet in length, and the pier, 375 feet in length, are so constructed that vessels may lie alongside at any state of the tide and in all weathers, and discharge or load directly onto and from railway cars. There are seven berths, five at the breakwater and one on each side of the pier, and the railway tracks are so arranged that loading and discharging can be proceeded with independently at each berth. The berths along the pier have 21 feet of water at the lowest tides, but steamers drawing 25 feet can discharge with safety, provided they are prepared to take the mud at low water. There are three steam cranes available for weights up to 5 tons each. A branch railway runs from the pier to Tongho, 6 miles distant, on the main line of the Peking-Mukden Railway. Cargo can be discharged at the wharves into the cars of the Peking-Mukden line, thus insuring the loading of goods directly from steamer and transportation to destination without transshipment. Cargoes from Shanghai and elsewhere may be shipped on through bills of lading and passed through Chinwangtao under bond, obviating extra charges for go-down storage and railway reloading. Shipments of such cargo to Tientsin are received in the administration's depot, where delivery may be accepted and where there is extensive open storage and a certain amount of go-down accommodation. The administration maintains its own fleet of steamers, called the "Ping" line, which carry coal to other ports of China as well as to Japan.

Practically all the steamship companies engaged in China's foreign or coastwise trade have branches or agencies in Tientsin. In normal times ships of all the leading maritime nations enter and clear this port. The division of the port's shipping among the various flags shows that the Japanese flag exceeds all others, Great Britain, China, the United States, and Norway following in order. The tonnage credited to the last two countries is, comparatively, very small. The most notable feature is the number of ocean-going steamers for direct trade with foreign countries. Shortly before the outbreak of war several excellent steamers had been added to the regular trade of the port, and the average size of steamers coming to the Tientsin bund has been gradually increasing, but owing to the war the number of vessels reaching Tientsin has decreased considerably. The Compagnie des Messageries Maritimes withdrew its direct European service shortly after the outbreak of war, and the British Government requisitioned for war purposes many vessels of the various steamship companies of that nationality in the Far East. Tientsin was one of the ports touched at by the Volunteer Fleet of Russia in its regular service, which has long since been discontinued. Only the Japanese vessels to and from this port have increased in number. This increase is partly due to a new service recently inaugurated by the Dairen Kisen Kaisha between Tientsin and Dairen. As a result of the withdrawal of so many vessels the supply of tonnage is inadequate to meet the demand, which becomes greater as the volume of the foreign and domestic trade increases. This has caused high freight rates, but Tientsin has not been affected to the same extent as some other ports where the shortage in tonnage was more pronounced or made itself felt more promptly.

When a steamer enters the river on approaching Tientsin, a shipping pass is required, the cost thereof being at the rate of 0.05 tael per ton, and if the ship remains at Taku, at the rate of 0.025 tael per ton. Moreover, a mooring fee is charged at the rate of 0.03 tael per ton, while the wharfage fee on the Tientsin bund is 5 taels. These special taxes on shipping accrue to the Haiho Conservancy Board.

The regular services of the steamship companies operating to and from Tientsin are entirely local, the Tientsin lines merely connecting this port with other China ports and with Japan ports. No direct services are maintained to ports abroad; transshipment is necessary both for cargo and passengers, chiefly at Shanghai, Kobe, or Hongkong.

The chief local steamship services are:

Tientsin-Shanghai route:
  Indo-China Steam Navigation Co.; Jardine, Matheson & Co., agents.
  China Navigation Co.; Butterfield & Swire, agents.
  China Merchants Steam Navigation Co.; maintains a branch in Tientsin.
Tientsin-Kobe route:
  Nippon Yusen Kaisha; maintains a branch in Tientsin.
  Osaka Shosen Kaisha; maintains a branch in Tientsin.
Tientsin-Hongkong route:
  Indo-China Steam Navigation Co.; Jardine, Matheson & Co., agents.
  China Navigation Co.; Butterfield & Swire, agents.

Minor services are also maintained between Tientsin and Dairen, by the Dairen Kisen Kaisha, and to Newchwang, by the Nippon Yusen Kaisha.

Nearly all the principal steamship lines are represented in Tientsin, generally through agents, so that all necessary information and facilities are obtainable. The following leading shipping companies are represented and have offices in Tientsin:

Pacific Mail Steamship Co.
China Mail Steamship Co.
Canadian Pacific Ocean Services.
Messageries Maritimes.
Peninsular & Oriental Steam Navigation Co.
Glen and Shire Line.

For the conveyance of cargo from Taku bar to Tientsin, in cases where the steamers are too heavily laden to navigate the river, services are operated by the Taku Tug & Lighter Co. and the Tientsin Lighter Co. For navigating the river and crossing the bar, etc., the Taku Pilot Co. supplies pilots.

During the year 1918 the total number of steamers that entered and cleared the port of Tientsin was 1,609, with an aggregate tonnage of 1,598,292.

Among the forwarding agencies at Tientsin are the China Forwarding & Express Co., a Japanese concern, with branches at Peking and Tangku, and R. Sorelle, 17 Rue Courbet, Tientsin.

The International Sleeping Car Co. is a passenger and ticketing agency. It is established in Tientsin and Peking and operates, in normal times, the International Express and Trans-Siberian Passenger Traffic. Passengers are booked to the United States and Europe, and local travel tickets are issued for any part of the Far East.

FACILITIES FOR TRAVEL.

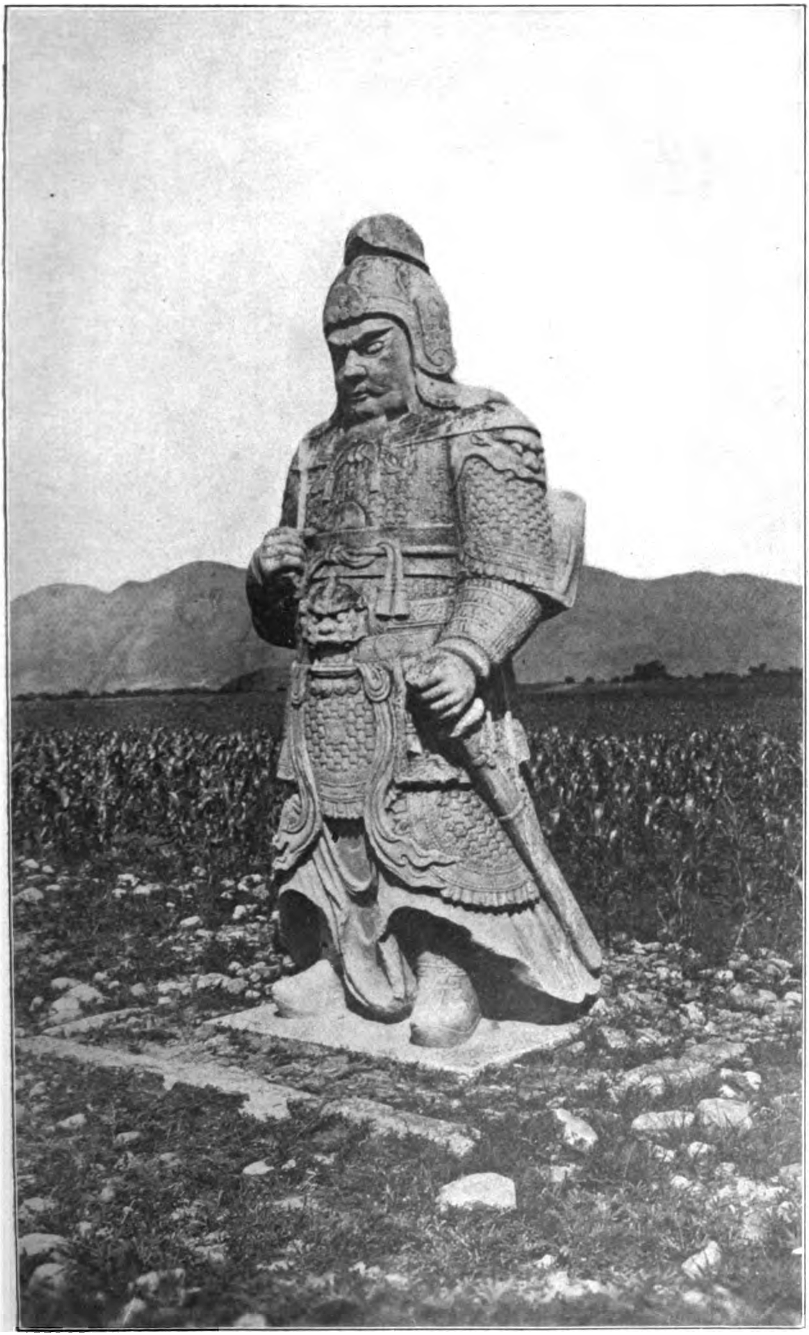
Modern hotels are found in the cities of the district much frequented by foreigners. Tientsin and Peking have several large foreign hotels. Those in Tientsin are the Astor House and the Imperial Hotel, and in Peking the Grand Hotel des Wagons-Lits and the Grand Hotel de Pekin. The Imperial Hotel of Tientsin conducts a branch in Shanhaikwan, and small seaside hotels are opened at Peitaiho and Chinwangtao during the summer months. The large hotels in Tientsin and Peking are in commodious buildings, furnished with electric light, water, and steam heat. These hotels have motor cars that attend the arrival and departure of trains, and in Tientsin of steamers as well. Guides are furnished for the convenience of visitors. The American and other foreign banks in Peking and Tientsin are in a position to accord banking facilities to the traveling public.

Living expenses have always been higher in this district than in other parts of China. Board and lodging at the principal hotels cost $8 Mex. per day and $200 Mex. per month. Table board by the month costs $55 Mex.

In Nankow, Kalgan, Shihchiachwang, Paotingfu, etc., there are no purely foreign hotels, but in each of these places there is a Chinese-owned hotel conducted in foreign style. The latter is quite distinct from the usual native inn. The furniture is semiforeign in design, and foreign foods and drinks are obtainable.

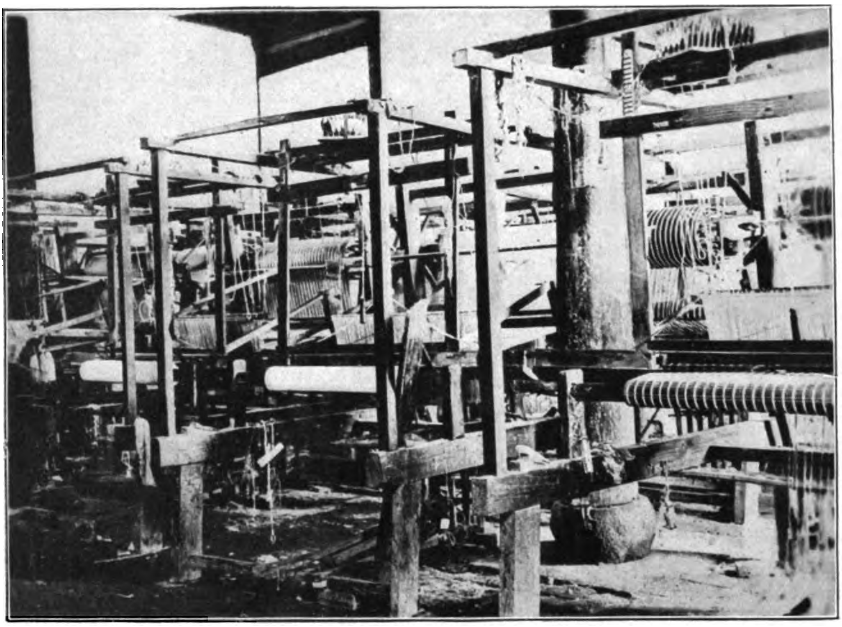
The best season for tourists is the autumn. In summer the cool air and bathing at the seaside places, Peitaiho, Shanhaikwan, and Chinwangtao, attract visitors from all over North China. For travelers within the district the railways constitute the only convenient means of communication. The Peking-Mukden Railway conducts a daily special train service during the summer months between the interior cities of Peking and Tientsin and the seaside resorts. First-class passenger trains with through baggage cars are operated, and excursion tickets are sold at a fare and a half for the round trip. The Tientsin-Pukow Railway is the quickest connection between Shanghai and Tientsin, but the steamer route between these ports is frequently preferred as being more comfortable. The trip takes three days, and the cost of a first-class ticket one way is $75. Along the Peking-Hankow Railway, which traverses the greater part of the Tientsin district, the traveler can see ancient walled cities, temples, and pagodas. Daily direct trains are operated over this route. The Peking-Suiyuan line carries the traveler in two hours from Peking to Nankow, when the Great Wall of China and the Ming Tombs may be seen. A foreign hotel is operated by the railway at Nankow, where chairs and guides may be secured for the tombs. The Cheng-Tai line, in connection with the through service of the Peking-Hankow Railway at Shihchiachwang, affords travelers an opportunity of seeing one of the most picturesque parts of China. The line passes through a mountainous section of country, rich in mineral resources, to the provincial capital of Shansi at Taiyuanfu.

In addition to the places mentioned above, there are others of absorbing interest to visitors. Tourists will find Peking, with its numerous walls, imperial palaces, temples, tombs, and parks, probably the most interesting city in the world. The most famous places are the Summer Palace, the Hunting Park, and the Temples



Photograph by E. M. Newman.

FIG. 32.—A GUARD AT THE MING TOMBS.



Photograph by E. M. Newman.

FIG. 33.—HAND LOOMS IN CHINA.

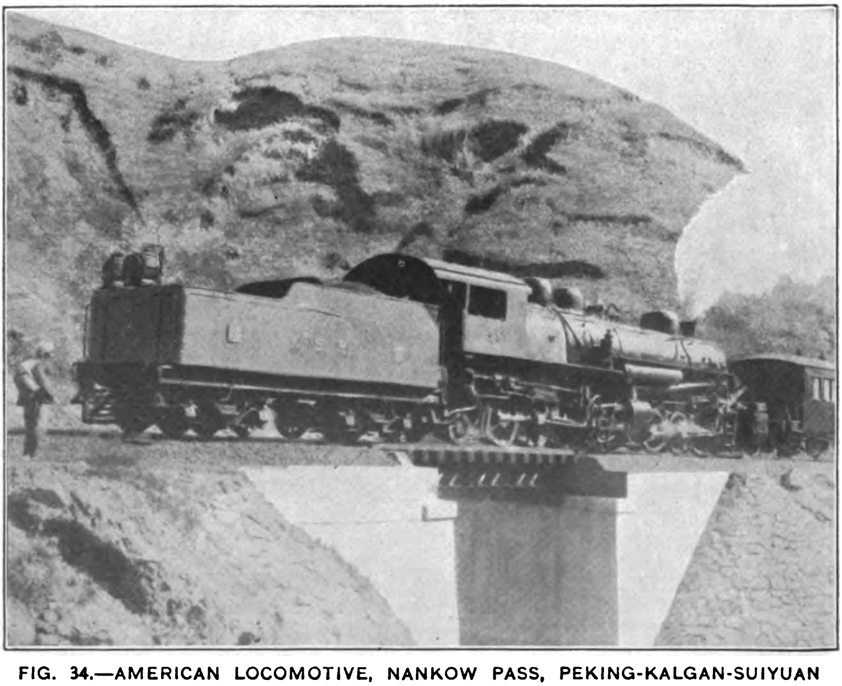


FIG. 34.—AMERICAN LOCOMOTIVE, NANKOW PASS, PEKING-KALGAN-SUIYUAN RAILWAY.

of Heaven and Agriculture situated in large open spaces south of the city. Other well-known objects in Peking are the Confucian Temple and the Lama Temple. There is a hot spring in Tangshan, near Peking. As the place is connected by motor road with Peking and has a new foreign-style hotel, it is becoming a favorite resort for foreigners and natives. Another delightful retreat in the environs of Peking is the Western Hills, 7 miles distant. They have recently been connected with Peking by a road specially designed for motor and light carriage traffic. The road was built under the auspices of the Ministry of Communications and is a continuation of the road to the Summer Palace. The trip by motor car from the Legation Quarter consumes about an hour. The authorities collect a toll on the road: For motor cars, 50 cents; for carriages, 30 cents; for jinrikishas, 3 cents; for pedestrians there is no charge.

Tientsin is the great trade center of North China, while Tangshan is the largest mining and industrial town in the district. In Jehol is a park surrounded by a battlemented wall 15 miles in length. The palaces and appurtenances occupy a vast space, and many old monasteries are located in this region. The western imperial tombs are situated close to the Liangkowchwang station on the Peking-Hankow Railway, 79 miles from Peking. Thus tourists can conveniently visit these tombs, which are beautifully situated in a region of wooded hills and clear streams.

The Chinese authorities render adequate protection to foreign travelers in the interior of the district.

TRADE ORGANIZATIONS IN DISTRICT.

All the cities and towns of this district have a Chinese Chamber of Commerce. In Chihli Province, the leading chambers are to be found in Tientsin, Peking, Paotingfu, and Kalgan. There are 61 branch chambers. There is a chamber at Jehol with 4 branches. In Shansi Province the head chamber is at Taiyuanfu, with 22 branches in the other towns of the Province. These institutions, which are wholly Chinese in origin and development, exist primarily for the object of promoting the trade and other interests of their members, who are the leading local merchants. The power and authority wielded by them are derived chiefly through their mode of organization; for they are essentially federations of the trade and artisans' guilds of their localities. Each guild elects directors to manage its affairs, and these directors, ex officio, become members of the local chamber of commerce. The Tientsin Chinese Chamber of Commerce is an institution of great power and influence, and these are exerted in a variety of ways. It plays a prominent part in the discussion and decision of every public question—political and social as well as economic. It even aids the Government at times in enforcing the laws.

The foreign merchants of the leading commercial powers in Tientsin have formed individual chambers of commerce; for instance, there are the American, the British, the French, and the Japanese chambers of commerce to safeguard their respective trade interests. In a number of instances the local chamber is a branch of the central chamber for China, usually located at Shanghai. In addition to the separate chambers in Tientsin, there is also a General Chamber of Commerce composed of the leading foreign merchants of all nationalities. All questions pertaining to general trade conditions and calling for governmental action, whether Chinese or foreign, originate as a rule with one of the chambers and are first submitted to a committee thereof for consideration. If such action is deemed necessary, the chamber will refer the subject to the consular body for action. The consular body may then open negotiations with the local Chinese authorities or else refer the question to the diplomatic corps at Peking with a recommendation that representations be made to the central Government.

The Chinese Chamber of Commerce and the foreign chambers cooperate in measures for the common good and for the improvement of trade methods, both native and foreign.

There are also in Tientsin a number of guilds organized by Chinese merchants dealing in certain commodities for the purpose of facilitating business transactions. There are artisans' guilds as well. The principal trade guilds are those having to do with wool, hides, skins and furs, bristles, cotton, walnuts, groundnuts, and seeds. The original purpose in establishing these guilds is to avoid competition among native sellers in transactions with foreign merchants, and as a consequence thereof foreign buyers are often confronted with the decision of the members of the guilds to hold stocks for higher prices.

In addition, there are various public organizations in Tientsin formed by foreign merchants who have a vested interest therein; conspicuous among those producing results beneficial to trade is the Tientsin Antiadulteration Society, which prevents evil practices in the preparation of wool, cotton, etc., for the foreign markets.

AMERICAN INTERESTS.

Ever since the treaties of 1860, by which diplomatic intercourse was established with Peking and Tientsin was opened to foreign residence and enterprise, the relationship between the United States and North China has been close and extensive. The demonstrated unselfishness of American missionary activity, the nonaggressive methods pursued by American merchants, and the justice and reasonableness of the governmental support accorded them, as well as the constant and very real diplomatic assistance extended China by the United States, have served to convince the Chinese that the American Government and people are actuated by an earnest desire to be helpful to China. During 60 years of the most cordial relations they have been given abundant proof of the sincerity of America's friendship and the equity of its conduct. As a consequence, the Chinese are more favorably disposed toward Americans than toward other foreigners. They trust the Americans as they do no other people. Naturally, under such favorable conditions American interests in this district—missionary, commercial, educational, charitable, and social—have developed to a greater degree than those of other foreign countries.

There were on December 31, 1917, 1,043 Americans, excluding the military, in this district; more than half are connected with the various kinds of mission work. The other American residents are engaged in trade, except the few in the employ of the Chinese Government in connection with the railways, customs, salt administration, post office, and other services, and those engaged in educational work in the numerous native schools, colleges, and universities.

American missionaries are widely located over the district. Their work is being conducted along evangelical, educational, and medical lines. They have been a leading factor in the reform movement in this section of China. They have erected churches and chapels, schools, hospitals, and have created agencies and publication societies for the diffusion of western knowledge and the dissemination of western literature. The principal American missions are the following:

American Board of Commissioners for Foreign Missions.
American Episcopal Mission.
American Presbyterian Mission.
Apostolic Mission.
Board of Foreign Missions of the General Committee of Mennonites of North America.
China Mennonite Mission.
Church of the Brethren.
Foreign Mission Board of the Baptist Convention.
General Mission Board of the Pentecostal Church of the Nazarene.
Independent Mission.
International Reform Mission.
Methodist Episcopal Mission.
Methodist Protestant Mission.
National Holiness Mission.
Scandinavian Alliance Mission.
South Chihli Mission.
Young Men's Christian Association and Young Women's Christian Association.

American missionary interests compare favorably with those of other countries represented in this field. In fact, more than one-half of the missionary activity in North China is American.

There are several secular associations in this district whose members embrace Chinese and Americans, such as the American Returned Student Club, the University Club, and the Chinese Political and Social Science Association, all of which result in bringing into a closer relationship Americans and foreign-educated Chinese. The Young Men's Christian Association and Young Women's Christian Association, established in Peking and Tientsin, have social-service clubs attached. They conduct night schools and maintain classes in athletics. Mention should be made of the Tsinghua College, Peking, an educational institution maintained at Government expense for preparing Chinese youths for entrance into American colleges and universities, in accordance with an undertaking given by China to the United States at the time the latter remitted a portion of its share of the Boxer indemity. Practically all the instructors in the Tsinghua College are American.

Most of the Americans doing business in the Tientsin district are engaged in the importation of oil, tobacco, iron and steel, machinery, provisions, canned goods, general merchandise, etc., and the exportation of wool, skins, hides, bristles, straw braid, cotton, walnuts, peanuts, etc.

Since the outbreak of the war American trade with the district has greatly developed, while the number of American firms and Americans connected therewith has increased twofold. There are at present 27 American firms in Tientsin and 5 in Peking. The trade (and the nationals engaged therein) of all other countries except

Japan have decreased. The Japanese alone, of the foreign residents in the district, outnumber the Americans.

American merchants have possessed exceptional advantages in recent years, in that, with the sole exception of Japan, they have been relieved from the pressure of strong competitors. American trade in many lines has obtained a good and, it is to be hoped, permanent footing in Tientsin and Peking; moreover, the field open to American exploitation is gradually being extended to northern Chihli, Inner Mongolia, and Shansi.

Promising fields for American commercial activity are described at length under the headings of "Import Trade" (p. 335) and "General Trade Suggestions."

In North China American commerce has been intrenched by 60 years of effort. American merchants and missionaries have extended American enterprise throughout this whole region, while the majority of the Chinese students in American educational institutions have come from the northern Provinces, and it has been a matter of frequent comment that the influence of no other nation has been so great. The United States is directly interested, therefore, in the peaceful development of this section of China. In the impending industrial awakening of North China and in the coming struggle for commercial success, American energy and capital may be expected to assert vigorously their right of participation.

GENERAL TRADE SUGGESTIONS.

It is believed that the present is an especially favorable time for American manufacturers and exporters to seek the extension of their existing trade and the introduction of new products in the Tientsin district. A most important step to this end would be to carry stocks at distributing centers and to conduct business directly with the native consumer. While there are a number of American firms in Tientsin in certain lines following this method, thus eliminating all unnecessary charges, yet many items of American manufacture finding a market there are carried in stock at Shanghai and at Japanese ports and distributed in North China through native merchants; other items are ordered spasmodically through local commission merchants or middlemen.

The development of trade in modern manufactures, machinery, household conveniences, farming implements, etc., is not so much a matter of competition as of education and the creation of a demand. That the Chinese do not take quickly to foreign innovations is probably due to their instinctive desire to avoid experiments that may prove expensive and fruitless, but they are not slow to adopt new methods, when convinced that there is advantage or profit in doing so. The development of markets under existing conditions, therefore, necessitates acquaintance with the peculiar customs and requirements through demonstrations and close and constant touch with the trade. In a number of lines American products are becoming better known and consequently gaining ground.

With a view to making the conduct of direct business more general in this district, American manufacturers, or a combination of manufacturers, exporters, financiers, and steamship companies, interested in Far Eastern trade, should establish extensive distributing or selling organizations in Tientsin with agencies at the principal markets in the interior. The parties concerned, which may comprise those interested in competitive or noncompetitive articles, should cooperate in sending out to North China representatives to go over the field with this object in view. The organization should have its own technical experts and salesmen, offer goods suited to the markets, carry stocks at the distributing centers from which any quantity desired can be sold, give away samples, advertise extensively, and grant the customary credits. In order to build up a corps of trained salesmen the organization should send out young men who would come prepared to learn the language and customs of the people, to familiarize themselves with local conditions, to make the service a life career, and to cooperate with Chinese assistants. In most lines it is believed that such a distributing system, if intelligently handled, would lead to the development of these markets, and that the plan could be adopted with profit and with a prospect of permanence. It might be found profitable to conduct a joint import and export trade as the best method of minimizing the risks attendant upon the wide fluctuations in exchange values.

Many Tientsin importers and merchants who have studied trade conditions in North China are of the opinion that there are several lines of American goods for which fair markets could be developed if the enterprise is energetically undertaken in the right way. North China has already witnessed a great development in railways, and, to a less marked extent, in mines, electrical plants, public utilities, and modern factories. These industries are constantly being extended, and there is reason to believe that the region is at the inception of a vast modern industrial development and will require additional railway, mining, and electrical materials, as well as those going into public utilities and factories. Machinery and metal products will be in great demand. Other articles for which there is a promising field are cotton woven fabrics, stoves, roofing, hardware, canned goods, provisions, dry goods, and general merchandise.

American manufacturers in leading lines, until the cooperative plan above described is inaugurated, should have their own branches in China, and those not having their own representatives there should intrust their interests to American firms with organizations in the field. Chinese merchants wonder at the employment of foreign representatives for American houses.

Chinese officials and merchants are anxious that American business houses shall establish distinctively American branches or agencies in this and other parts of North China. They invite American capital to be used in developing commercial and industrial enterprises there and urge that direct transportation facilities with the United States be arranged. The Chinese, however, would expect the American firms to be financed purely with American capital, and to conduct business according to strictly American methods.

The lack of direct shipping as well as adequate banking facilities, together with the absence of cooperative selling and distributing organizations, constitute the chief obstacles to the development of American trade in this region. Under present conditions American manufacturers are compelled to look to their natural competitors to convey their products to the country of destination, to negotiate the drafts and credits connected with the transaction, and finally to dispose of the goods. American ships, American capital, American organizations are necessary to trade expansion in North China. Though this field is being systematically exploited by their competitors, yet with serious concerted effort American manufacturers and exporters may expect to participate in the trade and thus share the prosperity of the district.

In promoting investments of American capital in North China it may be advisable as well as practicable for American financial interests in a restricted number of lines, such as railway and mining enterprises and loans to the Chinese Government for the development of industries or for purely administrative purposes, to cooperate with the leading countries of Europe and the Far East.

AMOY CONSULAR DISTRICT.

By Consul Clarence E. Gauss.

LOCATION AND AREA.

The Amoy consular district includes the southern two-fifths of the Province of Fukien. The port of Amoy lies in latitude 24° north and longitude 118° east; the latitude is approximately the same as that of Key West, Fla.

The district has an estimated area of about 20,000 square miles, or about the same as the States of New Hampshire and Vermont combined.

POPULATION.

On the basis of the Minchengpu census of 1910, it is estimated that the population of the Amoy consular district is about 6,000,000, making the density of population about 300 to the square mile. This might be compared to the density of population in New Jersey, placed by the 1910 census at 337.

This consular district supplies a heavy percentage of the Chinese emigrants going abroad; in consequence the number of young, able-bodied men in the district is below normal, with a corresponding effect on the population.

Practically the entire population lives in towns or villages. While a very large percentage is engaged in agricultural pursuits, the land is worked largely by clans, and the members of each clan or of several clans establish themselves in small villages adjacent to the tracts they cultivate.

Of the principal cities of the district, Amoy claims a population of 114,000, Changchow 100,000, Chuanchow 70,000, and Anhai 25,000. There are numerous small cities and towns.

In 1917 the foreign population of the Amoy district, according to the customs statistics, was 3,885, including 3,154 Japanese, 423 British, and 158 Americans. Of the 396 foreign firms in 1917, as compared with 260 in 1916, 310 were Japanese, 48 British, 18 French, and 9 American. The foreign residents and firms include persons of Chinese origin or descent who are citizens, subjects, or protégés of the nationalities indicated.

PHYSICAL FEATURES.

The Amoy consular district is mountainous, with the special characteristic that the chains are parallel and run from southwest to northeast. The rivers are short, and rapids frequently occur except within a few miles of the coast, where there is often insufficient current to keep open a proper channel.

Topographically this district has been described as similar to western South Carolina and northern Georgia.

CLIMATE.

The climate of Fukien Province is semitropical in the eastern portion; in the extreme west it varies more toward the temperate. Along the coasts frosts rarely occur. January to March are the coldest months of the year. From about February to June rains are frequent and often torrential. The average annual rainfall at Amoy is about 48 inches. July, August, and September bring an oppressive heat, the thermometer at Amoy rising at times as high as 100.2° and the humidity registering 88. During the summer and autumn months typhoons appear but usually strike Amoy with diminished force owing to the nature of the coast line and the partial protection afforded by the island of Formosa. From the middle of October until the middle of January the climate at Amoy is generally cool and otherwise agreeable. Climatically, Amoy has been described as similar to Key West, Fla.

POLITICAL SUBDIVISIONS.

This district includes the political subdivisions or prefectures of Tingchowfu, Changchowfu, and Chuanchowfu, with the independent subprefecture of Lungyenchow—a total of 28 hsien or counties, under the control of two taoyin, or subgovernors, who are subordinate to the civil governor at Foochow, the capital. The taoyin at Amoy administers the prefectures of Chuanchowfu and Hsinghuafu as well as Yungchunhsien (the two latter in the Foochow consular district). The taoyin at Changchow, about 33 miles inland from Amoy, controls the prefectures of Tingchowfu, Changchowfu, and the independent subprefecture of Lungyenchow.

Under the supervision of each taoyin there is a magistrate for each hsien or county.

At Amoy, with a district covering southern Fukien, a commissioner of foreign affairs holds office, serving also as Chinese superintendent of the Maritime Customs. He is appointed by the central Government and takes rank with the taoyin. He has no definite control, however, over the magistrates, and in consequence his authority is weakened. While his office is the nominal channel for all intercourse with foreigners, as a matter of practice the foreign consuls frequently deal directly with the taoyins and local magistrates, having recourse when necessary to the civil governor at Foochow.

Southern Fukien is a separate military department under the military governor at Foochow, the department commander stationed at Amoy having the rank of a major general and commanding about 5,000 troops.

The various districts are represented in the provincial assembly at Foochow, but there are no local assemblies except that some of the villages and towns have what are known as self-governing bodies, and every village has its village elders or headmen.

For the most part, all authority is centered in the governor, taoyins and hsien magistrates and is enforced, when necessary, with the assistance of the military.

The judicial authority is vested in the hsien magistrates in the absence of the establishment of a regular judicial system in this part of the Province. The hsien magistrates have assistants with legal training attached to their yamens to act for them in judicial matters. A district court was in operation at Amoy up to 1912, but suspended on account of lack of appropriations. The reestablishment of this court has now been sanctioned.

Appeals are taken from the magistrates' courts either to the district court or the supreme court at Foochow, according to the nature of the case, but in mixed cases involving foreign interests appeals have been taken to the special commissioner of foreign affairs at Foochow, although this procedure has not received the formal sanction of the consular body at Amoy.

Independent police forces are maintained in the larger cities, under the control of the hsien magistrates, and in some cases a water police has been established for control of the harbors from the police standpoint.

EDUCATION.

Considerable progress has been made in education in the last decade, the two outstanding features being the establishment of public schools in cities and towns of importance and the effort to improve the curricula in Chinese schools by substituting mathematics, geography, and other practical branches for part of the study of the Chinese literature and classics, to which Chinese schools were largely confined in the past.

Some difficulty has been experienced in obtaining competent instructors; students from missionary institutions are being drawn very largely into this work, a feature that should bring wholesome results.

The Government schools are supported partly by grants from the provincial and local treasuries, partly by private subscriptions, and to some extent by tuition fees.

The following table, taken from a report covering Fukien Province, will serve to indicate in an approximate way the extent of the Chinese educational activities under Government supervision in the Amoy consular district:

Class of schools.	Number.	Number of students.	Number of teachers.	Revenue.	Expenditure.
				$ Mex.	*$ Mex.*
Normal	2	130	10	7,213	12,061
Middle	7	868	61	47,080	51,445
Grammar	290	8,130	1,365	207,380	252,399
Primary	570	25,312	847	82,547	97,765
Commercial	3	217	15	6,270	6,714
Half-day	3	188	3	160	198
Total	875	34,845	2,301	350,650	420,582

In United States currency the revenue and expenditure given above amount (at normal exchange) to about $175,325 and $210,291, respectively.

Considering that a decade ago the Government maintained practically no schools, the figures indicate a most gratifying advance along educational lines.

One particularly pleasing feature has been the establishment of a limited number of schools for girls. Formerly Chinese girls were generally uneducated and in a condition of complete dependence, but the influence of the foreign mission schools for girls has been felt and is shown in the efforts to establish Government schools for them.

The mission schools report continued progress. One American mission in this district maintains 3 kindergartens, 30 lower elementary schools, 4 higher elementary schools, and 1 middle school, with a total teaching staff of 2 foreign men, 6 foreign women, and 118 Chinese instructors. Another mission maintains 7 boys' schools, with a teaching staff of 1 American and 9 Chinese and a total enrollment of 175 pupils, and 3 girls' schools, with 3 teachers and 85 pupils.

English missionaries conduct 3 kindergartens, with 268 pupils; 51 lower elementary schools, with 1,366 male and 636 female pupils; 7 higher elementary schools, with 138 male and 47 female pupils; 1 middle school, with 47 pupils; and a college (of high-school grade), with 180 students. The total teaching staff consists of 5 foreign men, 7 foreign women, and 27 Chinese.

Besides these missionary educational activities, there are others, including the Roman Catholic, for which statistics are not available, but which are understood to be quite extensive, as well as the educational work of the Young Men's Christian Association.

There are also a number of private schools in various sections of the Amoy district. Tung Wen Institute at Amoy is probably the largest of these. This school, of academy grade, was established some years ago by an American consul in conjunction with a group of public-spirited Chinese. The institute has prospered, and plans have been maturing to raise it to full college grade. The superintendent is an American, and there are two American instructors. The Chinese teaching staff numbers nine. The enrollment is about 275 pupils. This institution is supported entirely by endowment of the Chinese gentry and by tuition fees. The American consul is ex officio chairman of the board of trustees and the local commissioner of customs is vice chairman. The board of trustees includes a number of Philippine and Singapore Chinese of considerable wealth.

The Chinese schools depend almost entirely on Chinese and Japanese manufacturers for their supplies and equipment. The schools under foreign supervision are supplied either from home (including the United States) or from depots at Shanghai or Hongkong maintained under mission auspices.

There is room for considerable advance in the use of modern school equipment and supplies, but the funds available for educational purposes are limited and there is not now much prospect of any noteworthy increase in this line.

There is at this time no higher technical institution available in this district for Amoy Chinese. The mission hospitals undertake medical instruction of a useful and practical character, the students studying under foreign physicians in charge. Hospital supplies are drawn principally from Hongkong and Shanghai, and in some cases directly from the United States and England. The American mission hospitals at Amoy have recently been considerably enlarged. They use American hospital equipment and supplies, so far as possible.

AGRICULTURE.

South Fukien is one of the least developed parts of China. The country is broken and mountainous, the hill ranges having flat irrigable valleys at their base. The soil on the hills is, for the most part, stiff, poor, and thin, there being little or no surface soil remaining.

The soil in the valleys is the surface soil washed down from the hillsides, and must once have been fairly fertile; but ages of constant cultivation have so impoverished it that fertilizers are now constantly required.

Agriculture, however, is the most important industry of the district and it has been estimated that approximately 60 per cent of the population is engaged in this pursuit.

Rice, tobacco, sugar cane, sweet potatoes, fruits, narcissus bulbs, and garden vegetables are principally cultivated. Two and sometimes three crops are raised annually in this district.

Rice is grown principally in the Changchow prefecture. By a system of terraces, rice may be cultivated even to the summits of steep hills. The average annual yield in the Changchow prefecture has been estimated at about 40,000 tons. The rice crop in this consular district, however, is not sufficient to supply the local demand and there is an annual importation of foreign rice to the extent of 25,000 to 30,000 tons annually.

Sugar cane is grown principally in Changchow prefecture and in Tunganhsien, although it can be raised all along the coast of Fukien Province. Sugar-cane growing, however, has gradually declined, and whereas a decade ago (or less) considerable quantities were exported, the annual export, which goes now to North China principally, is in the neighborhood of only 3,000 tons, and refined and white sugar is imported from foreign ports.

Observing conditions in Formosa, the Chinese in the Amoy district were encouraged at one time to believe that a thriving sugar industry could be developed there, but it was soon found that with the comparatively high cost of labor, the foreign competition, and the lack of transportation facilities in the interior of the Province, the venture could not be successful, and the production has consequently fallen off.

Tobacco is raised principally in Changchow and Tingchow prefectures, and the portion exported goes principally to Formosa, Java, and the Straits Settlements. Amoy participates to the extent of about 8½ per cent, or $450,000 United States currency, in the foreign and domestic trade in native tobacco.

Both black and green teas are produced in the district, but the quantities are unimportant—amounting, in fact, to less than 1 per cent of the total production in all China. In the sixties and seventies of the last century the Amoy district produced large quantities of Amoy oolong tea. In 1874–75 more than 7,500,000 pounds of this tea went to the United States. But the tea was of poor quality, adulterated, and, moreover, heavily taxed. Other countries were coming into the market with teas of better grade. The tea trade steadily declined until in 1899 the chapter closed with the last shipment of Amoy tea to the United States, 31,705 pounds. Except for small quantities now sent to the Chinese emigrants in the Straits Settlements, etc., the trade in Amoy tea is dead, and towns and large districts once full of life and movement have become ruined and deserted. The annual export now amounts to 400 or 500 tons, valued at about $100,000 United States currency.

With the decline in the trade in Amoy teas, the foreign merchants turned to the exportation of Formosan teas, for which the market grew, and Amoy continued for a long period of years to be a flourishing tea port. Although the Amoy firms had their tasters in Formosa, the tea was settled, warehoused, and shipped from Amoy. This was partly because the foreign and Chinese merchants had their establishments and godowns there but mainly on account of the excellence of the harbor at Amoy and the lack of suitable harbor facilities in Formosa. Even for some years after the occupation of Formosa by the Japanese and the cession of that island to Japan at the close of the Chino-Japanese war, the trade centered at Amoy, but with the reconstruction of the railway from Taipeh to Keelung in Formosa, the establishment of new firms in northern Formosa, the efforts of the Japanese administration to improve the harbor of Keelung, and the advantage of the gold standard, the market gradually moved its center to Keelung. In 1905 about 55 per cent of the Formosan tea was still sent to the United States through Amoy. During the decade that followed the trade finally slipped away from the Chinese port, and Amoy, once prominent in the commerce of China as a principal tea port, has relapsed into a position of minor importance in the trade of the Republic.

The principal fruits grown in the district are pomelos, oranges, lungngans, pears, plums, bananas, peaches, and persimmons. The fruit comes principally from the Changchow region, which is the richest agricultural section of the district. The pomelo, for which Amoy is celebrated, comes from Pohlam. There is a limited exportation of fruits to other Chinese ports, and tinned fruits and dried lungngans go abroad for the consumption of Amoy Chinese overseas.

Cereals, other than rice, have practically no place in the agricultural products of the district, although some wheat is raised. About half a million dollars' worth of wheat flour, principally Chinese, is imported annually.

Narcissus bulbs, called by the Chinese "shui hsien hua-t'ou," are grown in this district at Yuanshan, close to the south gate of the city of Changchow. They form the only article of export from Amoy to the mainland of the United States. This flower, it is understood, was imported from Holland in the latter part of the sixteenth century and has been grown more successfully in the Changchow district than elsewhere in China. The bulbs are generally planted in the autumn, from September to November, and gathered in the third year following. Some disagreement between growers and buyers has arisen during the past few years, and the trade has also suffered somewhat on account of taxation. The normal annual export, of late years, is about 1,000,000 or 1,500,000 pieces. The value, however, is only about $16,000. Most of the bulbs exported go to the United States and Canada.

The methods of farming and the implements used are very primitive. The fields are generally cultivated by hand with rude hoes, though in some instances wooden plows (one-handled, single stock, with a plowshare of hardwood or iron) and wooden-tooth harrows are used.

These are drawn either by water buffalos or by an animal that is known locally as a cow but is in fact a hybrid yak. Both the male and female animals are used for this purpose.

The buffalos and yaks are also the dairy animals throughout southern Fukien. Hogs are raised on a large scale, and poultry is found in every farmyard.

Agricultural lands are held to a large extent by clans, who maintain something of a community system, everything pertaining to the farm life being as a rule directed by the head of the clan. Loans and mortgages on crops are frequently made, usually at very high rates of interest, and in the case of leased land the rental is usually paid by the first crop, remaining crops belonging to the renter. Commission merchants are not unknown, but they do not represent any organized business.

Constant fertilizing of the soil is necessary. Manures and excreta are used, and bean cake is imported from Manchuria and North China. In 1915 the importation of bean cake at Amoy amounted to about $1,500,000 United States currency in value, and in 1913 it reached $1,800,000.

FISHERIES.

Enjoying an extensive coast line with numerous bays and harbors, Fukien Province is well fitted for producing a sturdy race of fishermen. The waters abound in fish of various kinds, the annual catch including the haretail (in the spring), the small seabream (in the summer), and the seabream (in the winter) as the principal fish of the seasons. Oysters, shrimps, and prawns are also to be had. The best estimates from native sources place the annual catch at about 500,000 pounds.

MINERALS.

Judged from the geological aspect, the richness of the mineral deposits of south Fukien is generally admitted; abundant outcrops of coal, iron, and correlative minerals are found in the several districts; but the lack of transportation facilities has so far proved an insurmountable obstacle to the exploitation of this mineral wealth.

The following notes on the minerals found in this district are from the Customs Decennial Reports (1902–1911):

Anki district.—At a distance of some 50 miles by waterway from Chuanchowfu, extensive veins of coal, iron, galena, zinc blende, and limestone are exposed to view. The coal is bituminous, producing a short flame with high temperature. In places the outcrop of coal is from 3 to 6 feet in thickness; worked by native methods, it supplies fuel to the surrounding villages. The repetition of seams is unknown. Iron mines are abundant; according to a native expert the ore is said to contain 70 per cent of iron. Galena is also rich, a sample assayed having shown 1 ounce ore and three-quarters of an ounce lead. Zinc blende has also been discovered. Gold is supposed to exist in this district, but no authentic information is available.

Lungyenchow district.—Extensive coal fields and iron beds are found in this district. The geological formation and mineral deposits are similar to those in the Anki district. The distance from the nearest seaport is about 120 miles.

Anthracite coal seams lie everywhere exposed to view, varying in thickness from 3 to 9 feet. Coal is so abundant in this district that even the poorest keep fires alight day and night, as rekindling is found more expensive. The price on the spot is only 4 to 8 cents per picul (133⅓ pounds). A sample seen by the writer contains at least 90 per cent of fixed carbon, with brilliant luster. It burns with a very short flame, producing a strong heat. It is superior to Pinghsiang hard coal, which is much used in the Yangtze Valley, and would make an excellent coal for iron-smelting purposes and for household use. Coal fields intertraversed with limestone and metallic veins seem to cover the whole of the chow (prefecture), extending even to Engteng, where outcrops of a similar variety of coal are worked.

Rich iron beds extend far and wide. At present three mines are in operation, but are worked by the most primitive methods, with an output of only 150 to 200 piculs per day.

Tingchowfu, Shaowufu, and Kienningfu districts.—In Tingchowfu district coal seams extend from Tsinglinhsien to Lienchenghsien, and near to Shaowufu outcrops of coal and iron are worked. Once a rich coal mine was said to have been in active operation near Kienningfu, but owing to reckless digging the pit collapsed and the workmen were buried alive * * *.

Thus it will be seen that a vast, uniform, and continuous coal field, with its correlative iron and other minerals, covers nearly all the southern districts of Fukien, extending to Kiangsi. Dips and strikes, folds, and faults of the veins must be solved by experts.

To exploitation of mineral wealth Amoy must now look to regain the former commercial prosperity enjoyed when it was a tea port. At present, lack of transportation facilities absolutely prohibits development, and the prospects of early exploitation are not bright.

Besides the lack of transportation facilities, several reasons have been assigned for the failure to open up the mineral wealth of the district, among them being fear of foreign aggression, mutual suspicion among the Chinese themselves in joint enterprises without foreign capital, and the unsatisfactory state of the mining laws, which has so far largely discouraged the participation of foreign capital.

The attitude toward possible American participation in the development of the mineral wealth of the Province is decidedly favorable, and such participation would mean, of course, the extensive use of American mining machinery and equipment. Political considerations and the mining laws, however, must be taken into account.

COMMUNICATIONS: PATHS AND WATERWAYS.

The transportation facilities in southern Fukien connecting the principal cities and towns with the principal seaport, Amoy, are decidedly limited; and as regards general transportation into the interior, it may be said that this is one of the chief problems confronting the people of this section.

So far as South China is concerned, there are no roads. The nearest approach to a road, generally speaking, is a narrow footpath, raised about a foot above the fields. As expressed by one writer: "The only commissioner of these highways is the tramp of ceaseless thousands bearing their heavy burdens over them, from one generation to another. One never expects them to be kept in good order. No fences mark their boundary, no signposts their direction." And yet, into many parts of the district, the only means of transportation is by burden bearers over these narrow paths, unpaved and often impassable.

The district is equally poorly equipped for water transportation. The Kiulungkiang, entering the sea at Amoy, is the most important stream, as it connects Amoy with Changchowfu and the rich agricultural section lying back of the first range of hills paralleling the coast. This stream has two forks known as the North and West Rivers. Even from Changchowfu to Amoy the river is navigable for only very light-draft native craft, and in some stretches farther inland small boats of 1-foot draft can not pass. To bring coal, for instance, from Lungyenchow, two transshipments are necessary on account of rapids, and boats of only from 1 to 6 tons are available along the entire route. Steam launches are able to proceed as far as Chiohbe en route to Changchow, but only at flood tide.

A stream having its sources beyond Anki and Yungchun flows close by the city of Chuanchowfu, but this, like the Kiulungkiang, is only available for shallow-draft boats.

The estuary on the north of Amoy extends within a few miles of Tungan, and still farther north to Anhai, the inland port of Chuanchowfu. Steam-launch service with these points is available.

There are numerous small streams and waterways throughout the district, but they are navigable in part only for very small boats, being broken by numerous rapids.

There are no fixed charges or tariffs for cargo or freight traffic; these are determined by the traffic and facilities available at the time of departure. Plans have been drawn and surveys made for a series of roads on the island of Amoy, the scheme providing for about 16 miles of road, the first section to be built directly across the island. Funds for this project are not yet available.

RAILWAYS.

There is but one short railway in the entire district. This is what is known as the Chang-Hsia Railway or the Amoy-Changchow branch of the proposed Fukien railway system. A scheme for a system of railways in Fukien was notified from the provincial capital in 1906. This scheme contemplated a line from Amoy to Changchow, thence via Chuanchow and Hinghwa to Foochow, with a branch also proceeding from Changchow south to join the Kwangtung railways at Chaochowfu.

Work on the Amoy-Changchow section, a distance of about 33 miles, was begun in 1907, and at the end of 1911 the line was completed as far as the left bank of the East River, near Kiangtungkiao, better known to foreigners as Pohlam bridge, about 17 miles distant from Sungsu, the Amoy terminus (on the mainland across from Amoy Island). A bridge across the river at Pohlam must be built before further advance can be made. The expense of this undertaking has so far barred the extension to Changchow.

This project was originally financed by private Chinese capital; when the line was completed as far as Pohlam bridge the shareholders were dissatisfied with the progress made for the $800,000 (local currency) originally subscribed, and it was found impossible to raise additional funds.

The road was taken over by the central Government on April 1, 1914, for management, pending the time when sufficient funds can be raised to complete and properly nationalize the line. The road is now being operated at a loss under the Ministry of Communications.

The railhead remains at Pohlam bridge, and trains are run daily along this 17 miles of line. The roadbed and equipment have not been kept up, and the line is in a decidedly poor condition.

Neither Sungsu (the terminus on the mainland opposite Amoy) nor the railhead at Pohlam is of any consequence as a shipping point, and the amount of freight carried is therefore practically nil.

There is no immediate prospect of anything further being done with the present line, or with the original proposed scheme of railways for the Province—largely because of lack of funds but partly from political considerations.

A proposal is being considered to build a narrow-gauge passenger railway from a point near Anhai, on the estuary north of Amoy, to Chuanchowfu, but nothing has been done on the project, it being decided not to proceed further with the scheme until after the close of the European war and the reestablishment of normal conditions.

A proposal has been made, however, to construct a temporary automobile road over this stretch and maintain a motor-bus service—the busses later (when the railroad is built) to be used on roads to act as feeders for the rail line.

POSTAL FACILITIES.

Besides the Chinese postal service, which maintains mail and parcel communication with all parts of China at the established tariff (with the exception that additional postage is required on mail matter to and from distant inland points and postal money-order facilities are restricted), the port of Amoy enjoys Japanese, British, French, and German postal service with points abroad and with some of the other treaty ports of China. Money-order facilities, however, especially with the United States, are restricted and need to be materially improved.

Mail matter from the United States intended for Amoy now passes through the United States Postal Agency at Shanghai to the Chinese postal service and reaches Amoy usually by direct steamer from Shanghai, but sometimes via Foochow or Swatow. The average time for mail matter from New York to Amoy is 30 days, and the same for return mails, but the unsatisfactory mail facilities on the Pacific that have resulted from the European war have frequently caused delay.

TELEGRAPHS.

The Chinese Telegraph Administration maintains land-line connection between Amoy and South China ports, Shanghai, and Peking, with branches to the larger cities in the Amoy district, including Changchowfu, Chuanchowfu, Chaoanhsien, Tingchowfu, Lungyen, and Liencheng. The tariff is that uniformly in force throughout China: Per word, Chinese, in Fukien Province, $0.06 Mex.[1]; in other parts of China, $0.12 Mex.; English, in Fukien Province, $0.09 Mex.; in other parts of China, $0.18 Mex.

The Great Northern Telegraph Co. (Danish) has cable connection between Amoy, Foochow, Shanghai, and Hongkong. The tariff fluctuates with silver exchange and is fixed and notified from time to time, usually quarterly. The ordinary rates per word are: Amoy to Shanghai and Hongkong, $0.18 Mex.; to Foochow, $0.09 Mex.; to places in North China (via Shanghai), $0.36 Mex.; to places in South China (via Hongkong), with a few exceptions, $0.36 Mex.; rates to America and Europe on charges corresponding to the above and to the rates from Shanghai and Hongkong. Rates to the United States, via the Pacific, are: New York and Boston, $2.40 Mex.; Chicago and St. Louis, $2.35 Mex.; San Francisco, $2.15 Mex.

The French Telegraph Administration maintained a cable from Amoy to Saigon. This line has been out of service for several years, though communication may be restored after the close of the European war.

The foreign telegraph companies have depended for supplies and equipment largely on their home countries, and, before the war, to some extent on Germany. Supplies are now drawn from home countries and from British sources.

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[1] See footnote on p. 84.

The Chinese line is supplied through the Chinese Telegraph Administration's supply department in Shanghai, under the Ministry of Communications at Peking. It is understood that considerable American material is being used by the Chinese lines since the outbreak of the European war.

TELEPHONES.

There is a telephone system in the international settlement on the island of Kulangsu, Amoy, under Japanese ownership and management. There are not more than 25 telephones in operation; the service is unsatisfactory and inefficient. In the city of Amoy there is a Chinese telephone company operating about 135 telephones. The equipment is from Japan. The service is charged for at the rate of $4 local currency per month.

NEWSPAPERS.

At present three Chinese newspapers are published at this port, with a combined circulation of only 3,100. A shipping paper in English, with no regular news service (the Amoy Gazette), is published daily for 36 subscribers. A number of Hongkong and Shanghai native papers circulate throughout the district. While no statistics are available, it has been estimated that probably only 7 to 10 per cent of the inhabitants are able to read or write.

PUBLIC WORKS.

As in all parts of China, there is in the Amoy consular district a very extensive system of irrigation of fields for the production of rice, but this is entirely under the control of the farming people and is a crude and simple but effective system. No foreign machinery is used; and, considering the circumstances of the people, it is to be doubted whether foreign pumping machinery and windmills could be introduced successfully.

There is no conservancy or reclamation project in hand or contemplated at the present time.

As in most other Chinese cities, there is a complete absence of water supply and sewerage systems in Chinese cities throughout this district.

There is electric lighting in Amoy City, Kulangsu (the foreign residence section of the port on an island in Amoy Harbor), Chiohbe, Changchow, and Chuanchow.

The Amoy plant was established in 1912 by a Chinese company, the Amoy Electric Light & Power Co., with a capital stock of $300,000 local currency. The equipment includes two 100-kilowatt and one 300-kilowatt turbine generators of American manufacture and four water-tube boilers. Power is transmitted in 3-phase, 60-cycle, 2,300-volt alternating current and stepped down to 110 volts for house service by means of transformers. The total number of lights in use is 16,000 in 16-candlepower equivalents. The charge for meter-rate consumers is 30 cents local currency and the charge for flat-rate consumers $1 local currency for 10 candlepower per month. This plant furnishes no power current at present, but is prepared to do so if industrial concerns should be established at Amoy.

Kulangsu has an electric-light installation operated by the Shanghai Electric & Asbestos Co. (Ltd.), a British company, which obtained an exclusive franchise in 1913 for a period of 15 years. The plant installed is claimed to be of 75-kilowatt capacity, the machines being of British manufacture, but the company has overloaded its real capacity and as a result the municipality has given notice that unless improved service is immediately forthcoming the monopoly will be set aside. The current is supplied in 220 volts direct current. The charge is 22 cents per unit local currency.

Changchow, inland 33 miles from Amoy, has a plant under construction. The Changma Electric Light & Power Co. (Ltd.), a Chinese concern, has organized with a capital of $150,000 local currency to erect a plant consisting of one 50-kilowatt generator and one 30-kilowatt generator to be driven by gas engines and give a lamp voltage of 220 direct current. Gas producers of English manufacture are to be used to supply gas to the gas engines.

Chiohbe, about 17 miles inland from Amoy, has a plant consisting of two 37-kilowatt generators, 500 volts, 74 amperes, driven at 960 rotations per minute, to supply 3,700 16-candlepower lights. Light is supplied at 220 volts. The charge is 80 cents local currency per lamp. It is proposed to install a meter system at 30 cents local currency a unit. The plant is driven by one 120-horsepower engine run on gas produced from Chinese coal costing about $20 local currency per ton in Amoy. The machinery is of British manufacture.

At Chuanchow, on the coast north of Amoy, a plant equipped with Japanese machinery is being run. A 2-cylinder, 150-horsepower producer gas engine drives a 75-kilowatt direct-current generator supplying a lamp voltage of 110. The coal used is obtained from Formosa in three different grades, costing $10, $8, and $6.75 United States currency per short ton. A 10-candlepower lamp costs 80 cents local currency a month. The meter rate varies from 26 to 32 cents local currency per unit. The company at present has more than 3,000 lamps in use. The capacity of the plant is placed at 3,500 lamps. It is proposed to purchase additional Japanese machinery, to consist of a 200-horsepower producer gas engine and a 150-kilowatt generator. The original plant cost about $15,000 United States currency.

Other cities in this consular district are discussing electric-light plants. The subject is particularly important at the present time on account of the high price of kerosene oil due to war conditions. There is an opportunity for the sale of American equipment, provided liberal financial arrangements can be offered.

Both Amoy City and the International Settlement of Kulangsu are in need of adequate water-supply systems. Surface wells alone now furnish the water supply, and in the dry seasons there is often a shortage of water. Attempts have been made to improve conditions, but so far without result.

TREATY PORTS AND FOREIGN CONCESSIONS.

Amoy is the only treaty port or port opened to foreign trade in the district, having been opened under the treaty with Great Britain of 1842. The Chinese population is estimated at about 114,000.

There is a British concession, a small Japanese concession, and a very small and more or less nominal American concession on Amoy Island along the harbor front.

In 1903 China granted as an international settlement the island of Kulangsu, opposite Amoy. This forms the consular and residential section of the port. It is administered under land regulations agreed upon between the treaty powers and the Chinese Government. Subject to some supervisory control by the consular body, the administration is vested in the Kulangsu municipal council, consisting of six foreign members, elected annually by the ratepayers, and one Chinese appointed by the Chinese authorities. The council is responsible for the general administration, taxation, police, sanitation, public works, etc. Funds are provided by a system of tax assessments on property and rentals and by license fees. Debentures to the extent of $20,000 local currency are outstanding.

The foreign population of this island is placed at 292 and the Chinese at 11,000. The population includes a number of British Chinese, Japanese (Formosan) Chinese, and Phillipine Chinese.

The report of the Kulangsu International Settlement for 1917 shows a revenue from taxes and licenses amounting to $41,300 Mex. and an expenditure of about the same amount. At the annual meeting of the taxpayers a resolution was adopted instructing the council to provide fire-fighting apparatus for the settlement. In view of the lack of a water system a chemical apparatus will probably be adopted.

Consulates are maintained by the United States, Great Britain, and Japan; merchant consulates by Belgium and the Netherlands; a merchant vice consulate by Norway; an honorary vice consulate by Denmark; and a consular agency by France.

FINANCE AND BANKING.

Banking in Amoy presents many unusual features. The many currencies in circulation make it difficult to give definite statements on exchange, etc., either locally, with the other China ports, or with the various foreign countries.

The Hongkong silver dollar, Japanese (Formosan) silver yen, Straits dollar, and Indo-China piaster are all seen among the "hard coin"; and the Chinese and Japanese banks issue paper currency.

One of the features of the trade of this port, says a recent Customs Trade Report, is that regarding the local currency:

> The unit of this currency is the so-called Spanish dollar, which, though actually in use in the sixties, had totally disappeared from the market by the end of the seventies. Since then, however, it has been retained as a book unit by the local agency of the Hongkong & Shanghai Bank and made to rule practically all commercial and banking transactions of the port. The rate of this unit with regard to the silver currency actually handled here—styled "chopped yen" and consisting variously of Japanese yen (coined for Formosa), Hongkong dollars, Mexican dollars, and Indo-China piasters, all considered (strange to say) to be mutually equivalent in value—is fixed from day to day by the aforesaid bank. It varies generally from about 2 per cent premium to par, but may even go below par in times when local silver coins are scarce, as in 1911, when it actually touched 3½ per cent discount. [Note: In 1916 it touched 9 per cent discount.] The sole criterion for this fluctuation is the bank's want or superfluity of silver dollars, which is practically synonymous with the port's demand or supply of coined currency. Some other banks established in more recent years—the Bank of Taiwan and the Chinese official Bank of Communications—have local silver currency, yen or dollars, as their unit, but this has not affected the paramount

position of the Spanish dollar as the basis of trade and foreign exchange transactions at Amoy. From a currency point of view the position is a most remarkable one, as the only legal tender for daily purposes consists practically of checks on one bank or silver coins at rates fluctuating daily at the will of that same bank. Though in theory the Spanish dollar is represented by 72 candereens Canton weight of current dollars or silver of 0.900 fineness, in practice sycee is not obtainable, and the bank reserves the right to refuse the acceptance of dollars by weight, taking them by count only, with the interposition of its daily rate to arrive at Spanish dollars. Needless to say, this rate also varies for buying and selling. The system of handling dollars by count only has become the rule, since the bank's policy of accepting only clean or slightly chopped dollars has had the effect of driving the old mutilated cup-and-saucer-like coins to other ports or into the melting pot.

Notwithstanding all the above peculiarities, the Amoy currency system presents distinct advantages for the trade as compared with the neighboring coast ports. By adhering to an extinct currency and continuing that as a book or bank unit, the bank is able to keep its unit mostly at par with the Hongkong dollar and quote for its sterling exchange almost invariably the identical figures ruling for the day at Hongkong. The Amoy merchant thus obtains in his foreign dealings the benefit of a sterling exchange rate very closely following the price of par silver and is freed from the additional uncertainties introduced by varying supply and demand of the local currency, which may amount to a considerable percentage in abnormal times or through artificial "riggings" of the money market. The Amoy currency system may thus be quoted as an object lesson to show how under a heterogeneous and irregular coinage system a fictitious bank unit may be resorted to almost unconsciously, with great steadying effect, and how easy it is even for a single bank to maintain such a fictitious unit under conditions which are far removed from carrying any force in the nature of legal compulsion. In this direction would seem ultimately to lie a practical road toward currency reform and unification for China.

In addition to the Hongkong & Shanghai Banking Corporation's branch, the Bank of Taiwan (Japanese), and the Bank of China (Chinese), there are private Chinese banks of varying importance and stability. Some of these banks are branches of similar establishments in the Philippine Islands, Singapore, and other ports in the East where large numbers of Amoy emigrants are found, and serve as one of the principal mediums for the transfer to Amoy of funds from the Chinese wage earners who have emigrated abroad. These remittances average in the neighborhood of $12,000,000 United States currency annually.

One of the interesting features of these native exchange banks is what is known as their "letter departments." These banks are sometimes known as letter hongs; but most of them also transact native exchange and banking business.

Chinese letter brokers establish themselves among the Chinese emigrants abroad and receive from them letters and amounts of money to be paid to the families in the Amoy district. The letters are then transmitted to the letter hongs with an endorsement showing the amount to be paid to the addressee, and the sum total of the remittance comes forward from the letter broker in an exchange transaction, or the letter broker, as the agent of the exchange bank, is granted a certain credit. The letters when received by the native exchange banks or letter hongs are distributed with the amount of currency called for. The charge for this service is from 2 to 3 per cent.

The interest rates charged by local banks on loans and granted on deposits are substantially as follows: Foreign banks, interest on deposits 2 to 2½ per cent on current accounts, and 3½ to 6 per cent on fixed deposits of from 6 to 12 months. Chinese banks, from 3 to 6 per cent on deposits and fixed deposits, and 7½ to 12 per cent on overdrafts and loans. Some Chinese banks have even higher rates.

MANUFACTURING AND OTHER INDUSTRIES.

Agriculture is the principal industry of the Amoy district; yet the exports of agricultural products are almost a negligible quantity and food products form a heavy item of import.

As previously mentioned, an important consideration in a census of the Amoy consular district is the fact that large numbers of its able-bodied male population are abroad. For many years past thousands of able-bodied men from this district have annually emigrated, principally to the Straits Settlements, the Dutch East Indies, and the Philippine Islands. A number of these have amassed fortunes, and though for many years they continue to live abroad they eventually return to spend their last days in Fukien Province; the less fortunate emigrants endeavor to do the same, and even those who can not be classed as successful are usually able to make remittances for the support of their families at home in this district.

The number of these emigrants leaving annually is about 60,000. There are also numerous returning emigrants, many of them coming home on periodical visits; but it remains a fact that the real workers of the district, who might develop the resources of south Fukien if capital were available and political considerations did not deter, are seeking their fortunes abroad, and a very considerable number of those remaining at home are living in comparative idleness and supporting themselves on the remittances from members of the clan in foreign lands. This serious drain on the laboring population is everywhere evidenced by the deserted fields and abandoned homesteads. Not infrequently villages are encountered in which the majority of the once substantial habitations and well-built temples are now ruins or rapidly falling into decay, and the people of such hamlets are principally women and children and elderly men, the young and able-bodied having gone abroad to earn a living for themselves and their dependents with the expectation of more promising conditions—a hope that, unfortunately, is not always realized.

The result is a scarcity of labor, comparatively high rates of wages, and the neglect of the industrial possibilities of the district.

The two canning factories at Amoy represent the total of modern manufacturing establishments in this consular district. The factory of the Amoy Tinning Co. (Ltd.), a Chinese corporation, is probably one of the most interesting in South China. It is the larger of the two and is well equipped with modern canning factory machinery, principally American, which cost about $20,000. The buildings and land cost about $40,000. The plant is equipped for an output of 40,000 cans a day; the present output is about 10,000 cans a day. The capital is about $100,000, and the business done in 1916 amounted to almost $100,000.

The China Canning Co. (Ltd.), also a Chinese company, has an establishment in Amoy of which the land and buildings cost about $25,000 and the machinery and equipment $18,000. The plant is equipped for 10,000 cans a day; its present output is 5,000 cans a day. The capital invested amounts to about $76,000 and the present value is estimated at $85,000. The business in 1916 amounted to about $80,000.

The output of these two factories includes canned meats, canned fish, salted vegetables and shellfish, canned vegetables, preserved fruits, fruits in sirup, and soy and soy sauce.

Practically the entire output is intended for Chinese consumption, at home and abroad, and considerable quantities are exported annually to the Amoy Chinese in the Straits, India, Java, and the Philippine Islands. providing them with many of the delicacies of their home land.

Sugar factories, with some modern equipment on a small scale, are to be found at Amoy and elsewhere in the district (Tunganhsien, Lungkihsien, and Punghwohsien). It was thought at one time that a profitable sugar industry could be established in this district, but, as previously mentioned, the high hopes entertained have not been realized and the sugar industry has in many cases been abandoned.

A glass factory has been attempted at Amoy several times but has failed. Lamp chimneys and bottles were manufactured.

In this district of few industries the manufacture of paper stands out very prominently. "Joss" paper is the principal class manufactured, but writing, printing, and wrapping papers are also made. The industry is confined to small factories in the valleys and gorges of the mountainous parts of the hinterland. The most important region is probably Tingchow, but Punan (on the North River), Lungyenchow, and Kinan also are points of manufacture. The Chinese method of manufacture is very crude, but effective. The paper exported annually is valued at as much as $500,000 United States currency.

Bricks and tiles of Chinese type, for roofs and rough floors, are manufactured in the region of Chiohbe and Changchow for local consumption and for some small exportation to Formosa and the East Indies. The annual outward movement is very small.

Iron pans and ironware, principally kettles used in the manufacture of sugar and camphor in Formosa and catechu in the East Indies, once formed a considerable industry in this district, but the trade has declined as a result of outside competition. The annual outward movement from the port is very small.

Native tobacco is prepared and exported to the Chinese abroad, and some attempt has been made in a small way to establish a native cigarette industry.

The manufacture of bobbin lace by Chinese women is a local industry and is confined to the international settlement on the island of Kulangsu. This industry was started by a foreign lady who imported linen thread and patterns of Irish lace and taught the local women. The industry is very small, being confined to two guilds, but Amoy hand-made lace is not unknown, and with capital and organization it seems reasonable to presume that a profitable industry could be built up in the same way that the lace-making industry is spreading in the neighborhood of Chefoo.

Cloth made from ramie fiber, known commercially as grass cloth, is manufactured to a small extent in the extreme northern part of this Province. A considerable quantity of this grass cloth and similar cloth manufactured in Kiangsi Province is understood to find its way overland to Amoy and is prominent in the exports of the port to the Philippine Islands, but the actual quantity manufactured in the Amoy district is insignificant.

Coarse chinaware, paper umbrellas, and macaroni and vermicelli are the remaining items under the heading of manufactures, but they are of virtually no importance.

There is no prospect of any immediate considerable advance in manufacturing or in the mining industry. Political considerations partly contribute to this want of activity, as do lack of capital and the utter lack of transportation facilities to encourage the opening up of the smaller industries.

American capital would be welcomed in this district, the attitude of the people being friendly to the United States.

COMMERCE OF THE PORT: INTRODUCTORY SUMMARY.

Any review of the trade of Amoy would be lacking if it did not make some reference to the former importance of the port as a tea center. This tea trade, which placed Amoy in the foremost ranks of China ports at one time, has already been discussed in the review of the agricultural products of the district (see p. 335).

Out of a total of 49 ports opened to trade, Amoy in 1918 stood twenty-first in the importation of foreign goods (handling less than 1½ per cent of the total foreign imports into China) and thirtieth as regards exports (furnishing about one-third of 1 per cent of the goods shipped abroad).

The following table shows the gross and net value of the Maritime Customs trade of the port in the years 1904, 1913, and 1918:

Imports and exports.	1904	1913	1918
Imports of foreign goods:			
From foreign countries and Hongkong	$9,169,378	$8,094,285	$8,787,541
From Chinese ports	73,131	262,974	489,844
Total foreign imports	9,242,509	8,357,259	9,277,385
Reexports of foreign goods:			
To foreign countries and Hongkong	2,637,998	377,848	134,742
To Chinese ports	42,300	122,824	253,688
Total foreign reexports	2,680,298	500,672	388,430
Net total foreign imports	6,562,211	7,856,587	8,888,955
Imports of Chinese products	3,141,180	4,683,987	5,027,232
Reexports of Chinese products:			
To foreign countries	108,554	164,845	131,970
To Chinese ports	10,084	9,593	146,548
Total Chinese reexports	118,638	174,438	278,518
Net total Chinese imports	3,022,542	4,509,549	4,748,714
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	1,332,335	1,713,602	2,166,311
To Chinese ports	438,126	801,375	810,076
Total exports of local origin	1,770,461	2,514,977	2,976,387
Gross value of the trade of the port	14,154,150	15,556,223	17,281,004
Net value of the trade of the port	11,355,214	14,881,113	16,614,056

EXPORT TRADE.

The export statistics of Amoy for 1918 show that much the greater part of the export trade of the port is with those countries and foreign colonies to which the vast army of Amoy Chinese has scattered. The classes of articles exported are largely of the type for Chinese consumption, and it may be said as a general statement that the exports of the district go abroad principally to the Amoy Chinese overseas.

The following table shows, by quantity and value, the declared exports from Amoy to the United States and the Philippine Islands during the calendar years 1917 and 1918:

Articles.	1917		1918	
	Quantity.	Value	Quantity.	Value.
TO UNITED STATES.				
Narcissus bulbs ... thousands..	609	$26,985		
Personal and household effects				$231
Total		26,985		231
TO PHILIPPINE ISLANDS.				
Alum ... pounds..	52,360	1,520	10,199	385
Bamboo shoots (cut and dried)		1,187		320
Beans ... pounds..	172,103	9,811	34,398	2,790
Bean curd ... do....	11,248	961	3,367	596
Berries, arbutus, dried ... do....	87,948	4,134	29,971	1,914
Books and stationery		9,884		8,605
Brassware		157		
Brooms		203		43
Chinaware		6,044		3,227
Cloth, "T"				4,855
Combs		4,037		1,912
Fish nets, hemp ... pounds..	8,560	3,355	8,721	3,607
Fruits, n. e. s. ... do....	252,528	4,826	106,649	2,376
Garlic ... do....	1,442	94		
Grasscloth		5,806		
Grindstones ... tons..	1	22	1	41
Iron, manufactures of, n.e. s.		6,687		1,811
Joss sticks		935		1,008
Mortars, stone		225		208
Medicine ... pounds..	9,891	2,449	9,565	900
Nuts: Groundnuts, unshelled ... do....	42.966	2,034	14,644	1,393
Oils ... gallons..	2,267	1,309	85	59
Oysters		6,541		1,300
Paper ... pounds..	141,527	8,194	42,126	2,770
Paper:				
Cigarette		942		271
Joss		3,070		1,749
Pickled vegetables, salted and preserved		24,820		10,874
Playing cards ... packs..			213	106
Rice, cleaned and prepared ... pounds..	7,991	789	333	57
Shell fish and fishery products		1,527		792
Sugar candy ... pounds..	3,984	329	2,676	313
Tea ... do....	18,639	5,156	4,476	1,407
Tobacco, cut and prepared ... do....	1,932	931	2,765	1,603
Turnip seeds ... do....	13,731	621	1,998	274
Twine, hemp ... do....	41,730	3,602	8,157	1,914
Vegetables, in natural state		1,189		803
Vermicelli ... pounds..	367,766	15,443	126,830	6,023
Wines and spirits		439		1,217
Woodenware		990		823
Sundries		17,536		1,670
Total		157,799		70,046

The declared exports during 1913 were:

Articles.	Value, 1913.	Articles.	Value, 1913.	Articles.	Value, 1913.
TO UNITED STATES.		TO PHILIPPINE ISLANDS—continued.		TO PHILIPPINE ISLANDS—continued.	
Lace	$70				
Narcissus bulbs	7,658	Chinaware	$1,434	Tea	$3,567
Personal and household effects	326	Combs, wooden	1,179	Twine, hemp	1,923
Charges	10,780	Fish nets, hemp	5,296	Vegetables, in natural state	709
		Fruits, n. e. s	519	Vermicelli	1,982
Total	18,834	Grass cloth	14,624	Charges	4,090
		Paper	4,599	All other articles	8,188
TO PHILIPPINE ISLANDS.		Paper, joss	558		
		Pickled vegetables (salted) and preserves	2,191	Total	54,558
Beans	1,404	Rice, cleaned and prepared	734		
Books and stationery	1,561				

Because of the relative unimportance of Amoy's present export trade and the destination of the goods, it is not considered necessary to give statistics of shipments to countries other than the United States and its possessions.

Most of the exports being to Chinese overseas, it is found at Amoy that a considerable part of the export trade is in the hands of Chinese merchants. There are, however, several foreign firms that are prepared to do export business.

IMPORT TRADE.

It will have been noted from the table showing the gross and net values of imports and exports at Amoy that this port now carries an import trade in Chinese products amounting to something more than half as much as its consumption of foreign goods. In 1918 the net total imports of native goods amounted to $4,748,714, and of foreign goods to $8,888,955.

The following table shows the principal native goods imported in 1904, 1913, and 1915:

Articles.	1904		1913		1915[a]	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Bean cake ... tons	39,322	$786,364	79,293	$1,819,798	87,530	$1,590,541
Beans and peas ... do	29,272	625,521	32,489	791,818	51,845	1,122,415
Coal ... do	....	....	7,997	37,311	603	34,983
Cotton, raw ... do	313	67,248	233	41,067	205	40,623
Cotton, yarn ... do	....	....	1,226	301,596	1,394	299,398
Fish, dried and salted ... do	313	20,496	227	17,221	256	17,427
Flour ... do	684	24,868	4,791	166,452	19,609	574,208
Medicines	....	35,431	....	47,408	....	46,421
Oil, bean ... tons	311	22,334	475	39,748	1	60
Prawns, husked and dried ... do	1,572	161,347	691	62,603	29	2,912
Rice ... do	10,000	217,805	3,121	107,528	673	17,911
Samshu	....	28,546	....	119,727	2,241	103,554
Seed, sesame ... tons	892	39,737	870	17,099	595	29,462
Tea ... do	113	31,790	207	59,527	167	65,505
Tobacco leaf ... do	1,088	65,605	1,417	105,389	1,211	61,685
Vermicelli ... do	604	43,622	358	11,352	786	62,604
Wheat ... do	6,328	112,758	289	6,958	1,026	25,440
All other articles	....	857,708	....	931,385	....	881,370
Total	....	3,141,180	....	4,683,987	....	4,976,519

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[a] EDITOR'S NOTE.—There is no available statement showing the value of the native goods imported in more recent years.

The principal trade indications to be drawn from this table, without reference to variations that are attributable to transient causes (such as the war, lack of tonnage, local crop conditions, exchange affecting remittances home from emigrants abroad, etc.), are (1) the large and increasing quantity of bean cake required for fertilizer purposes (and bean cake is the cheapest fertilizer of the Far East, against which foreign fertilizers can not compete); (2) the appearance of Chinese cotton yarn in the statistics of 1913 and 1915 and the absence of such statistics in 1904, showing the gradual and important extension of the Chinese cotton-yarn business since the establishment of cotton mills in China; (3) the heavy increase in the importations of Chinese flour, which is gradually replacing the American flour for purposes of Chinese consumption in this part of China, following the advent of modern flour mills in North and Central China; and (4) the considerable quantities of foodstuffs that appear, showing that the Amoy district, despite the fact that agriculture is its principal industry, produces less than it consumes.

Turning now to the imports of foreign goods, one finds in 1904 a net total import of foreign goods amounting to $6,562,211; in 1913, $7,856,587; and in 1918, $8,888,955.

A feature of this import trade in foreign goods that deserves to be noted is the increase shown in the quantity of foreign goods imported from Chinese ports. This is an indication of the retrogression of Amoy from direct foreign trade to some dependence on other Chinese ports, principally Shanghai, for foreign goods.

The following table gives, for three years, the gross imports of foreign goods from foreign countries at the port of Amoy, by countries of origin:

Countries.	1916	1917	1918
British India	$544,730	$268,794	$49,168
Dutch Indies	557,259	270,540	440,174
French Indo-China	27,133	47	37,830
Hongkong	3,584,900	4,402,986	4,786,577
Japan (including Taiwan)	1,599,565	3,967,544	2,688,205
Philippine Islands	51,007	113,352	9,966
Singapore, Straits Settlements, etc	214,929	182,095	454,414
United States (including Hawaii)	505,555	324,504	313,733
All other countries	3,902	13,426	7,474
Total	7,088,880	8,643,378	8,787,541

Of the imports from foreign countries and Hongkong, the above statistics for 1918 show that 54 per cent came from the British colony of Hongkong, 30 per cent from Japan, 2½ per cent from the United States, and the remainder from the Dutch Indies, British India, Singapore, and the Philippines, the places overseas where the thousands of Amoy emigrants are laboring and seeking their fortunes. In fact, the shipments from those places represent largely a return in goods of part of the earnings of those emigrants, sent home for the support of their families.

The 54 per cent, or $4,786,577, credited in 1918 to Hongkong, largely represents foreign goods transshipped at that port, and includes a small amount of American goods sold at Amoy through Hongkong importers; the majority of the total, however, probably represents British goods, from Great Britain and the British colonies, and rice, sugar, and a few other Eastern food products for which Hongkong serves as a storehouse and distributing center.

Before the war Germany and Austria-Hungary claimed a fair percentage of the trade credited to Hongkong, but no statistics are available to show the extent of this participation in the Amoy trade.

The following table will serve to show the principal items that made up the net foreign imports for 1904, 1913, and 1918:

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
COTTON GOODS.						
Shirtings:						
Gray, plain ....pieces..	7,715	$8,657	63,823	$111,528	18,562	$100,443
White, plain........do....	53,579	137,913	35,316	108,151	19,003	122,147
Drills........do....	678	1,609	1,610	5,771	1,758	10,959
T cloths........do....	51,515	62,936	45,805	75,442	34,219	112,531
Lawns, white........do....	168	100	10,475	9,138	(a)	(a)
Dyed shirtings, figured and plain ....pieces..	6,168	15,807	4,142	13,135	(a)	(a)
Turkey-red shirtings........do....	8,373	13,539	14,693	34,319	(a)	(a)
Cotton yarn........tons..	3,901	980,747	2,418	658,948	300	261,969
WOOLEN GOODS.						
Camlets, English........pieces..	4,408	33,166	2,654	28,141	(a)	(a)
Cloth, broad and medium......yards..	13,171	13,040	655	719	(a)	(a)
Lastings........pieces..	758	4,653	272	2,440	(a)	(a)
Long ells........do....	871	3,076	720	3,289	(a)	(a)
Spanish stripes........yards..	20,623	8,167	4,571	2,271	(a)	(a)
Woolen yarn and braid........tons..	20	20,310	8	10,544	(a)	(a)
METALS.						
Iron bars and nail rods........tons..	3	679	284	8,420	(a)	(a)
Iron, old........do....	293	5,395	409	7,569	(a)	(a)
Lead, in pigs........do....	94	5,322	85	5,975	52	13,287
Quicksilver........do....	15	15,211	11	12,844	5	20,639
Tin, in slabs........do....	319	137,261	319	160,282	91	183,791
SUNDRIES.						
Bêche de mer, black and white..tons..	460	92,513	296	72,855	181	96,046
Cereals: Rice........do....	22,131	1,040,708	26,665	942,251	15,427	970,587
Cigarettes........mille..	....	9,838	27,156	52,079	98,681	526,838
Coal........tons..	10,988	62,416	12,562	62,617	14,140	251,325
Dyes, colors, and paints:						
Bark, mangrove........do....	1,102	16,360	431	7,662	....	[b]27,743
Bark, sapan wood........do....	79	1,952	69	1,478		
Fish and fishery products (not including bêche de mer, isinglass, seaweed, and agar-agar)........tons..	2,341	172,484	6,175	614,376	3,637	871,866
Flour........do....	9,191	332,716	17,034	670,424	89	8,550
Ginseng........pounds..	20,171	106,873	22,509	92,361	12,325	69,122
Manures (including chemical manures)........tons..	....	....	1,802	115,741	87	4,752
Matches, wood, Japan........gross..	515,970	85,817	59,957	182,442	658,134	356,146
Mats, tea and straw........pieces..	772,927	51,287	25 927	4,762	(a)	(a)
Medicines........	....	59,763	....	84,599	....	142,980
Oil, kerosene......American gallons..	802,960	102,595	4,997,584	625,478	1,858,093	581,932
Rattans........tons..	69	4,093	47	2,985	(a)	(a)
Sandalwood........do....	51	4,124	58	6,065	25	7,373
Sugar:						
White........do....	525	26,030	9,785	637,742	4,612	550,954
Refined........do....	470	25,237	1,118	75,884	4,197	608,949
Tea, Formosan........do....	8	3,642	....	....	44	19,361
All other articles........	....	2,896,645	....	2,345,860	....	[c]2,968,665
Total........	....	6,562,211	....	7,856,587	....	8,888,955

[a] Figures for 1918 not available.

[b] Dyes and dyestuffs.

[c] For 1918 this figure for "All other articles" includes all imports from Chinese ports; the specific items in this column represent imports from foreign countries and Hongkong.

COTTON GOODS.

Of the total imports, cotton goods form about one-fifth. The American participation in this trade, however, is very small, and confined largely to drills and jeans.

A considerable item of the cotton-goods trade is found in gray shirtings, the importations of which increased from 7,715 pieces in 1904 to 63,823 in 1913, but decreased to 18,562 in 1918. This trade is principally in the hands of the British and Japanese.

White shirtings are principally supplied by English manufacturers; the net imports in 1918 amounted to 19,003 pieces, valued at $122,147.

In T cloths, the Japanese control the bulk of the trade. Chintzes and plain cotton prints come mostly from England, which also sells the greater part of the cotton Italians, venetians, crêpe, and lastings, plain black and figured, that are imported at Amoy.

For a discussion of the South China cotton-goods trade, and the possible opportunity for American participation, the reader may be referred to Special Agents Series No. 107, Cotton Goods in China, by Trade Commissioner Ralph M. Odell (1916).

METALS AND MINERALS.

Under the above heading, tin in slabs is the most important item, reaching in 1913 a total of 319 tons, valued at $160,282, and in 1917 209 tons, valued at $204,091. In 1918 the amount was 91 tons, valued at $183,791. The China imports of tin in slabs are credited principally to Singapore.

Tin plates are used principally by the two canning companies at Amoy, and come largely from the United States.

The United States also participates to some extent in the import trade in steel bars, nails and rivets, nail rod, etc. The total trade in these items, however, is comparatively small.

RICE.

The largest single item of foreign imports is found in rice and rice paddy. In 1904 this amounted to 22,131 tons ($1,040,708), in 1913 to 26,665 tons ($942,251), and in 1918 to 15,427 tons ($970,587). The statistics credit the bulk of China's rice imports to Hongkong, which, however, is only a distributing point for rice from Siam, Indo-China, and British India. Amoy also draws a small quantity of rice from other China ports; but most of the imports come from abroad. The dependence of this district on outside food supplies is clearly indicated in this item of import.

BÊCHE DE MER.

Bêche de mer is another item of considerable importance, the value in 1904 reaching $92,513, in 1913 $72,855, and in 1918 $96,046. Here again Hongkong stands as a distributing point for this product from the Dutch Indies and Singapore.

FISH AND FISHERY PRODUCTS.

The United States participates to only a small extent in the China import trade in fish and fishery products, and practically not at all in the Amoy trade. Hongkong is a principal center through which Amoy imports but Japan also supplies a considerable portion. In

1904 the imports at Amoy amounted to only $172,484, but in 1913 they reached $614,376 and in 1918 $871,866. Here again is demonstrated the dependence of the Amoy district on the outside world for its food supplies.

SUGAR.

Sugar is another rather important article of food supply that Amoy draws from abroad. Notwithstanding that Amoy exports more than $100,000 worth of sugar to North China, it imports from abroad a supply of the same product, which in 1918 amounted to $608,949 in refined sugar and $550,954 in white sugar. The Amoy exports to North China consist principally of brown sugar.

KEROSENE.

Kerosene oil forms the one principal item of import in which the United States largely participates. In 1904 the kerosene imports amounted to 802,960 gallons, in 1913 to 4,997,584 gallons, and in 1918 to 1,858,093 gallons (valued at $581,932). Of the total American imports of all kinds into the Amoy district in 1918, given as $313,733, almost the entire amount was represented by American kerosene.

MATCHES.

A considerable business is done in the district in Japanese matches. In 1904 the imports reached $85,817; in 1913, $182,442; and in 1918, $356,146.

FLOUR.

Flour is an item which for some years was of considerable importance to the United States, but since domestic flour has appeared on the market in large quantities American flour is gradually being superseded. Of course the price of American flour, the war exchange freight rates, and shipping facilities account to a very considerable extent for the marked falling off, but it is interesting to review the imports of native flour: 1904, 684 tons, $24,868; 1913, 4,791 tons, $166,452; 1917, 8,888 tons, $467,581.

GINSENG.

Along with kerosene and flour, ginseng has always formed a part of the American trade with the port of Amoy; this trade, however, is not done directly but through the port of Hongkong. Ginseng imports in 1904 reached 20,171 pounds ($106,873); in 1913, 22,599 pounds ($92,361); and in 1918, 12,325 pounds ($69,122). But this, of course, does not represent American ginseng entirely, Chosen and Japan supplying a large part of the demand.

OTHER ARTICLES OF INTEREST TO AMERICAN EXPORTERS.

Without further detailed examination of the items of import, it is worth while to note some of the foreign imports that might be of interest to American exporters to this market, including cigarettes ($526,838 in 1918) distributed through the British-American Tobacco Co. (Ltd.); paints and oils, which come largely from Great Britain but in which American manufacturers could successfully compete in South China as they are doing in the northern ports; lamps and lampware, of American and Japanese origin; propelling machinery, largely from Great Britain; sewing machines; other machinery, in which the

United States should have its share; electrical materials and fittings, from Great Britain, Japan, and the United States; condensed milk, in which, through lack of proper representation, European brands prevail over the American.

GENERAL CONDITIONS IN IMPORT TRADE.

The import trade of Amoy is handled by the several foreign firms, by numerous Japanese importers who are active in the market, and, as in the case of other South China ports, by Chinese import houses that deal with firms at Hongkong or have business relations with Chinese abroad.

The comprador system is still used at this port by the European houses.

There are no American importers, with the exception of the Standard Oil Co. of New York, which handles petroleum products and lamps and lampware.

Two foreign banks, the Hongkong & Shanghai Banking Corporation (British) and the Bank of Taiwan (Japanese) finance the trade.

It deserves to be pointed out that outside of direct Japanese imports Amoy draws its foreign supplies largely from Hongkong, and to some extent from Shanghai, and also that the South China ports are usually included in territory alloted by foreign manufacturers to their agents in Hongkong or Shanghai.

Direct trade with the United States is largely out of the question. Trade with Manila is possible, but so far there has been little effort on the part of Manila merchants to participate in the trade of this port.

It is believed, however, that for the most part representatives of American manufacturers in Hongkong and Shanghai have failed to develop the South China coast-port trade; and while it may be true that richer fields are available elsewhere, it is entirely possible that, by occasional visits of foreign and Chinese representatives of such houses, the American trade with Amoy could be considerably increased.

Shanghai and Hongkong representatives of American firms should keep the South China coast-port consulates informed of the classes of American goods they handle and the American manufacturers they represent.

SHIPPING FACILITIES.

Amoy possesses one of the best deep-water harbors on the China coast. It is well lighted, and has accommodation for about 12 vessels of medium length in the inner harbor and abundant anchorage areas in the outer harbor for vessels of almost any length or draft.

Most of the loading and unloading is done by open cargo boats; care must therefore be taken in the packing of goods to be handled at this port so as to prevent damage from water or rough handling.

There is one dock at the port formerly operated by the New Amoy Dock Co. (Ltd.), but sold toward the close of the year 1917 to the Chinese Government for $410,000 local currency. The dock is 340 feet on blocks and 370 feet over all; width of entrance, 50 feet; depth on sill at high water, 18 feet.

Pilot service is maintained and is recommended upon entering the inner harbor. The charges are 1½ cents local currency per net register ton for merchant steamers, 2½ cents local currency per register ton for sailing vessels, and ¾ cent local currency per ton for war vessels (displacement); the minimum charge is $10 local currency.

Regular steamer connection is had by coasting vessels between Amoy and Foochow, Swatow, Hongkong, and Canton, and with Formosa. The Douglas Steam Navigation Co. and the Osaka Shosen Kaisha maintain ships on these runs under the British and Japanese flags, respectively.

With Shanghai a service is maintained, usually weekly, by the China Navigation Co. (British), with occasional calls from ships of the China Merchants Steam Navigation Co. (Chinese). These vessels call at Amoy en route to and from Hongkong or Swatow.

Normally, ships in the coolie trade ply on more or less regular schedules between Amoy and Manila, and Amoy, Singapore, and Java.

The Dutch Java-China-Japan line calls at Amoy en route to and from Kobe, with sailings monthly.

The China Merchants Steam Navigation Co. (Chinese) and the Indo-China Steam Navigation Co. (British) maintain irregular sailings between Amoy and other China coast ports.

There is no direct steamship connection with any port of the United States except by such vessels as ply between Amoy and Manila, occasional vessels to other Philippine ports, and the calls at Manila of the Japanese line to Java.

Irregular service has at times been maintained with Annam, Siam, and Rangoon.

The European war has resulted in high freight rates, even in the case of the coasting steamers, and has also withdrawn considerable tonnage, restricting the shipping facilities of the port.

In 1917, 689 steam vessels entered the port, with a tonnage of 822,957, as compared with 717 steamers, with a tonnage of 921,147 tons, in 1916. The principal nationalities represented were British, with 282 vessels of 365,551 tons, compared with 365 vessels of 479,318 tons in 1916; Japanese, 281 vessels of 281,081 tons in 1917 and 223 of 246,217 tons in 1916; Chinese, 74 vessels of 65,831 tons in 1917 and 89 of 91,636 tons in 1916; Dutch, 37 vessels of 95,147 tons in 1917 and 32 of 86,620 tons in 1916; and American, 7 of 10,110 tons in 1917 and 3 of 6,219 tons in 1916. In 1918 the shortage in shipping reached its height; the statistics show a falling off of 112 entries, totaling 193,000 tons, compared to 1917.

FACILITIES FOR TRAVEL.

The best season of the year for visiting Amoy and the Amoy district is from October to January. This is the dry season, when it is cool. It is followed by the rainy season and then by the extremely hot and humid summer.

There is one foreign hotel at the port, the King George, with accommodations for 8 to 15 guests. The rates are from $5 to $10 Mex. per day.

Amoy can be reached only by coasting steamer from Shanghai, Hongkong, or Formosa. No large mail boats call at the port, except that the Dutch liners on the Japan-Java-China run call at Amoy on their way north and usually on their way south from some North China or Japan port.

Travel in the interior is principally by small boat or sedan chair. The only railway in the district is that extending 17 miles toward Changchow from a point on the mainland opposite Amoy.

Steam-launch service is maintained with Chuanchow, Tungan, Anhai, Quemoy, and Chiohbe.

Amoy holds some interest for Americans on account of the visit of the American battleship fleet to this port in 1908, when the officers and sailors were elaborately entertained by the Chinese Government. Amoy is, moreover, one of the most picturesque and interesting of the South China ports and is worth a short visit by traveling Americans seeking more than a superficial view of China gained by visits to the large trade centers. Visits of tourists to the port are not recommended, however, except during the period from October to January, and care should be taken to ascertain that the port is free from quarantine at the time of intended visits.

TRADE ORGANIZATIONS.

A foreign chamber of commerce exists at the port, and in Amoy, Changchow, and Chuanchow there are Chinese chambers of commerce of some size and influence, in addition to the number of guilds of varying importance. The guilds or trade associations of Amoy include one engaged in trade with Hongkong and the East Indies, one comprising merchants engaged in North China trade, one for the silk-goods trade and others for the Formosan trade, paper trade, drug trade, etc.

AMERICAN INTERESTS.

The American interests in this district are largely missionary, but the Standard Oil Co. of New York maintains a branch at the port, with a large tank installation, the Singer Sewing Machine Co. maintains a Chinese agency, and the Texas Co. and one or two other American companies are represented by local houses.

There are a few Phillippine-Chinese firms at the port, engaging in local business and in private banking with the Philippine and other ports.

The missionary interests are extensive, and include hospitals, schools, and churches not only at Amoy and on the island of Kulangsu but in the interior at Changchow; Tungan, Siokhe, Shonghong, and other points.

The consular register shows 67 Americans (men, women, and children) residing in the district, and 82 Philippine-Chinese and 7 Hawaiian-Chinese, all under the protection of the United States.

GENERAL TRADE SUGGESTIONS.

Amoy offers little or nothing for export; its foreign imports it draws largely through Hongkong and Shanghai.

Direct trade with the district seems, therefore, largely out of the question, although there is an opportunity for some direct trade between Manila and Amoy.

It is the custom, in alloting territory to representatives or agents in China, to include the South China ports in the territory of the Hongkong (or sometimes the Shanghai) agent. But the South China ports apparently have not offered great inducement to these agents and they are more or less neglected in the trade campaigns in China, the foreign import business of the port being controlled largely by the local Chinese firms, the few foreign import houses there (usually connected with houses at other ports), and the small Japanese importers.

A more studied effort on the part of representatives of American manufacturers at Hongkong or Shanghai should result in increased American trade with the district, especially in such lines as iron and steel products, hardware, paints, varnishes, tinned goods, provisions, medicines, etc. But this trade can not be expected to reach very large figures.

It seems to the writer that if the Shanghai and Hongkong representatives of American manufacturers would be careful to inform the South China consulates of the classes of American goods they handle and the American manufacturers they represent, some extension of trade might be obtained through consular efforts, but these representatives should also from time to time visit the South China ports, or send competent foreign or Chinese salesmen to inquire into the trade, take trial orders, and establish business connections.

ANTUNG CONSULAR DISTRICT.

By Consul John K. Davis.

LOCATION AND AREA.

The Antung consular district consists of the eastern section of Fengtien Province, Manchuria. The eastern boundary is formed by the Yalu River, which is also the international boundary between Manchuria and Chosen (Korea); the northern boundary is the division line between Fengtien and Kirin Provinces; the western boundary is a purely arbitrary one; and the southern boundary is the Korea Bay. Expressed in terms of corresponding location in America, this district would extend from Philadelphia on the south to Boston on the north, the eastern boundary would be the Atlantic Ocean instead of the Yalu River, and the western boundary line would run through Worcester, Hartford, and Trenton.

The area of the Antung district is about 18,000 square miles, or almost exactly twice that of the State of Vermont.

POPULATION.

The official Chinese estimate of the population in 1916 is 1,652,400, or 91.8 to the square mile. While no statistics are available it is probable that less than 100,000 of the population is urban.

PHYSICAL FEATURES.

The most conspicuous physical feature is the Yalu River, which can be navigated by ocean steamers as far up as the city of Antung, a distance of 30 miles from its mouth, and is navigable for native junks of 10 tons burden for more than 350 miles above Antung. The southern part of the district is hilly, with a large percentage of arable land, but the northern half is crossed by numerous low mountains and the arable land is practically confined to the narrow valleys and the lower slopes of the mountains.

CLIMATE.

In climate this district is perhaps the best suited in all China for American and European residents, for while in other districts moderate temperatures are usually accompanied by lack of sufficient rainfall and adequate rainfall is too often combined with excessive heat, in Antung the average annual rainfall is 42.27 inches and the mean annual temperature is just under 45° F. The averages of temperature for January and July closely approximate those of northern Michigan. The extremes in Antung, however, are much more moderate, for the average lowest temperature for January is −6.66° and the average highest for July 89.66°.

The annual precipitation of rain and melted snow is 42.27 inches, which is very nearly that of Portland, Me.

The most disagreeable features of the climate are excessive wind and the concentration of 21.15 inches of rainfall in the months of July and August, which causes the Yalu River to flood almost every summer. During the late winter and early spring months there is an almost constant north wind coming from the Gobi Desert, which greatly accentuates the cold and renders outdoor work unpleasant and difficult.

The following table clearly indicates the temperature and rainfall at different seasons:

Month.	Rainfall and melted snow.	Mean temperature.	Average highest.	Average lowest.
	Inches.	*°F.*	*°F.*	*°F.*
January	0.35	16.66	40.00	−6.66
February	.09	22.80	47.00	6.00
March	1.65	33 88	54.00	16.00
April	1.33	46.03	71.66	28.33
May	2.66	56.81	82.33	37.66
June	5.35	55.96	89.33	53.33
July	11.48	66.53	89.66	61.66
August	9.67	67.75	89.66	61.66
September	5.50	62.73	87.00	46.00
October	2.73	49.33	78.66	28.00
November	.94	33.22	60.00	9.66
December	.52	17.55	39.33	−6.33
Annual	42.27	44.35	....	....

POLITICAL SUBDIVISIONS.

This district corresponds to the intendency of the three Eastern Marches and consists of that portion of the Province of Shengking south and east of a line starting from the sea west of Chuanghoting, thence north about 30 miles, thence northeast, crossing the Antung-Mukden Railway a little north of Fenghwangcheng and continuing in the same direction to the boundary of Fengtien and Kirin, thence following this boundary southeast to the Korean frontier.

EDUCATION.

The proportion of literates in this district is very low; while no figures are available, it is estimated at less than 10 per cent of the total population.

Educational progress, because of the lack of facilities for interior communication and the sparse population, has been less rapid than in the more densely populated parts of China.

By reason of the fact that Antung is the only large city and the greater number of the people live in rural communities or villages, there are no higher educational institutions in this district. The highest grade of school is the middle school, which corresponds to the grammar school in America. There is one of these middle schools in each hsien or county.

The only modern hospital managed by Chinese is a small Red Cross hospital in Antung under the management of two Chinese physicians who received their medical education in Japan.

The Japanese settlement at Antung possesses a Japanese graded school (costing $80,556), a higher primary school, and a kindergarten.

The only missionary schools are a few primary schools operated in Antung and at several interior points by the Danish Lutheran Mission.

Since the only textbooks in English that are used are primers printed in Shanghai and Japan, for teaching the English language to Chinese and Japanese children, and since practically no modern school equipment is in use, this district does not offer a market for American textbooks or school supplies.

There are two non-Chinese hospitals in this district—the South Manchuria Railway Hospital and the Danish Lutheran Mission Hospital, both in Antung. Both of these hospitals are run on modern lines and use modern equipment and supplies, chiefly of Japanese and German manufacture.

There is but little prospect of any increase in the near future in the use of modern school or hospital supplies, as the present schools and hospitals satisfy existing demands in the district.

AGRICULTURE.

With the exception of lumbering in the northern section and the bean and silk mills in Antung city, agriculture (including sericulture) forms the chief occupation of the population. The principal crops produced are soya beans, sorghum, corn, millet, and rice, as well as a wide variety of vegetables, such as cabbage, turnips, spinach, eggplant, etc. Soya beans and the cereals are exported, but the vegetables are consumed in the districts in which they are produced. The farming methods are the same as have been used in northern China for centuries. The implements are crude but inexpensive and practical, and consist of plows, hoes, rakes, spades, and picks. The chief farm draft animals are the horse, mule, ox, and donkey. Natural fertilizers consisting of animal manure and human excrement are used extensively.

With the exception of a Japanese dairy at Antung, no cows are kept for milk-producing purposes, and it is estimated that not more than 2,500 beeves are slaughtered annually. Cattle, therefore, are kept principally as beasts of burden. Large numbers of hogs and goats are raised and consumed in the district, but are not exported. Chickens, geese, and ducks are raised throughout the southern part of the district for local consumption, but there are no poultry farms. One breed of chickens found in this district is remarkable for the size both of the fowl and of the eggs.

Soya beans and their products, bean oil and bean cake, are exported, principally to Japan, Chosen (Korea), and South China ports. Millet and other cereals are exported to Chosen.

Exports of silk and cocoons amount to one-third of the total value of exports from Antung. The cocoons raised in this district are fed on the leaves of a variety of dwarf oak and produce silk of a natural brown color, whereas the silkworms of Central China, which are fed on mulberry leaves, produce white silk. The locally produced silk is the material from which the world-famous "pongee" fabrics are woven.

MINERALS AND MINING.

There are at present no large mines in this district, and as those individuals who have undertaken prospecting have, for obvious reasons, refrained from publishing the results of their investigation, accurate and comprehensive information concerning mineral deposits is not obtainable. However, to the north as far as Linkiang there are numerous outcroppings of bituminous coal, which are worked by the local Chinese residents in the most primitive manner. Gold ore of unknown grade has been found here and there throughout the district, copper deposits are said to exist near Linkiang and Tunghwa, while there are silver deposits near Fenghwangcheng.

As the Chinese administrative officials in this district are under the governor general at Mukden, reference should be made to the Mukden chapter (p. 217) for information as to the administration of mining affiairs and the official attitude toward foreign investments.

COMMUNICATIONS: GENERAL INTRODUCTION.

The city of Antung is very well situated as regards means of communication with the outside world. The South Manchuria Railway connects it with Mukden, where connections are made for Tientsin and Peking and for Northern Manchuria and Europe, and the Chosen Railway connects it with points in Chosen (Korea) and Japan.

From the end of March until the end of November steamers run from Antung to Shanghai, Tientsin, Tsingtau, Dairen, Chefoo, and Korean and Japanese ports. The connections with points in the interior, with the exception of those served by the South Manchuria Railway, and those on or near the Yalu River, are not good and are by means of crude native carts and sledges.

The Yalu River and its tributaries furnish one of the principal means of communication with the outlying portions of this district—from March to December by junks and from November to April by carts and sledges running over its frozen surface. Because of its shallowness at certain points there are no steam craft in commercial use, except for the short 30-mile section between Antung city and the sea. The junks are of varying type, and only the smaller ones can navigate for a long distance upstream. Seagoing junks, which ply principally to Shantung, Korean, and Manchurian ports, rarely attempt to go much farther upstream than the city of Antung.

On the tributaries of the Yalu River, of which the Hun is the only stream of any importance, the navigation (except on the Hun River below Shatsientze) is all downstream. That is, the numerous rapids and strong currents make it impracticable to take junks upstream, and produce is taken downstream in crude boats that are knocked to pieces and sold for lumber on reaching their destination.

The unit for transportation in the interior is the picul, which in this district is a weight of about 120 pounds, and packages must be of such size and shape that they can be conveniently carried on a cart bed. There is no fixed rate per mile per picul, but rates to equidistant points often vary greatly according to the difficulties of the road. There is, moreover, no fixed tariff between any two points, each shipment being subject to a special arrangement. However, the following average rate per picul (120 pounds) from Antung to certain interior points, which obtained in the spring of 1915, will convey a general idea of the difficulties of transportation (figures are in United States currency): To Linkiang, $0.75; to Tunghua, $0.42; to Yushulintze, $0.30.

Because of the inadequate trails that do service for roads, practically all produce is moved during the winter to points along waterways and is then brought down to Antung city in the spring; for transportation is at its best in the winter, when, with ice several feet thick, every river and stream furnishes a beautifully smooth road.

The only taxation—with the exception of a local tax at Shatsientze of about 1½ per cent, to which foreign goods are subjected when moving to the interior—is the "inland transit tax." This amounts to one-half of the import duty, and is paid at Antung before the goods go forward.

RAILWAYS.

The only railway in operation in this district is a 60-mile section of the South Manchuria Railway. The Antung-Mukden line, of which this is a part, was completed in 1910. It was constructed by the company operating it, and is Japanese owned. So far as is known, there are no plans for any extensions in this district. The locomotives and many of the better passenger coaches for this road have been purchased from America, while the poorer passenger coaches and freight cars are now manufactured by the company itself. The head offices of this railway are in Dairen. (For details concerning the South Manchuria Railway Co. see Dairen chapter, p. 519.) There are no new roads under construction or planned.

There are no tramways in this district, probably because of the fact that the only cities in it are Antung and Fenghwangcheng, which possess populations of less than 50,000 and 20,000, respectively.

ROADS.

The roads in this district are very poor; in fact, most of them are nothing but trails or stream beds. The only vehicle in use is the North China cart, a heavy, cumbersome, but exceedingly strong two-wheeled vehicle that is drawn by from two to six draft animals. Horses, mules, oxen, and donkeys are all in use, and occasionally a cart is seen that has four different kinds of animals hitched to it. Unfortunately, little if any attention is ever given to the upkeep or improvement of roads, with the result that so long as they are barely passable they receive no repairs.

POSTAL FACILITIES.

The Chinese Post Office furnishes an adequate service for nearly all towns of any importance in this district. Parcels sent to points not served by the railway must not be over 11 pounds in weight and 1 cubic foot in volume. The majority of the mail is carried by couriers and carts.

The only foreign post office in this district is the Japanese Post Office at Antung, which furnishes both parcel-post and money-order service with the United States. The parcel-post rate is 24 sen ($0.12 United States currency) per pound. The mail facilities with the United States through Korea and Japan are excellent. The average time required for receipt of first-class mail matter from New York is about 28 or 29 days; when good connections are made with the fastest steamships the time required is reduced by 3 to 5 days.

TELEGRAPHS.

The Chinese Telegraph Administration furnishes telegraphic service with nearly all of the more important towns in this district and with other Manchurian and Chinese cities, and receives messages for practically the entire civilized world. The rate varies with the distance. Telegrams for Shanghai are $0.18 Mex.[1] per word, and for points in the eastern part of the United States $1.20 (United States currency) per word. In addition to the Chinese telegraph service there is the Imperial Japanese Telegraph Service, which furnishes service with points in Manchuria, Chosen, and Japan, and also accepts telegrams for all important points in other countries. The rate for messages to points in Manchuria and Chosen (Korea) is 5 sen ($0.025 United States currency) per word.

There are no submarine cable terminals in this district, and messages for transmission to the United States, if sent by the Chinese Telegraph Administration, are sent over the Commercial Pacific Cable Co.'s cable at Shanghai, and if sent by the Japanese Imperial Government Telegraphs are forwarded from the cable stations in Japan.

The "Wheatstone" method of sending and receiving is in use.

The materials that have been used in the Chinese telegraph lines have come from England, Germany, and Japan, while most of those used in the Japanese lines came from Japan.

So far as is known, no extensions of either Chinese or Japanese telegraph lines in this district are contemplated.

TELEPHONES.

There are only two cities in this district having telephone services, Antung and Fenghwangcheng. From Antung there is long-distance telephone service to Takushan, 50 miles distant; to Fenghwangcheng, 40 miles; and to Santaolangtow, 6½ miles. In Antung there are Chinese and Japanese companies, the former operating in the Chinese city and the latter in the Japanese Settlement. The materials and instruments used by the two Antung companies and by the Fenghwangcheng company have all been purchased from Japan, and all instruments are of the magneto type. The number of telephones in use is as follows: Antung Chinese company, 250; Antung Japanese company, 427; Fenghwangcheng company, 36; total number in district, 713.

NEWSPAPERS.

There are no Chinese newspapers printed in this district, and only one Japanese paper. The Chinese papers published in Mukden, Peking, Tientsin, and Shanghai are read to a limited extent. Because of the small number of copies of any one paper coming to Antung, the use of the press for advertising purposes in this district would prove expensive and productive of scant results.

PUBLIC WORKS AND SANITATION.

So far as can be ascertained, there are at present no irrigation or reclamation projects for this district, and the only conservancy plan, the deepening of the fairway in the Yalu River immediately below

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[1] See footnote on p. 84.

Antung city, has been indefinitely postponed because of lack of funds.

In the Chinese city of Antung the streets have been macadamized, but, in consequence of continued lack of attention and the wear and tear caused by the narrow-tired but heavy native carts, they are in very poor condition.

In the Japanese Settlement, where Chinese carts are prohibited and where the general traffic is much lighter, the streets are well kept up. In both the Chinese city and the Japanese Settlement the streets are lighted by electricity. In the Chinese city the water supply is derived from private wells and the Yalu River, but in the Japanese Settlement there is a modern water-supply system fed by deep artesian wells. In both cities the sewerage is inadequate. Night soil and garbage are carried off by coolies and used as a fertilizer on near-by truck gardens. In both cities the only fire protection is furnished by hand-power engines, and from a western standpoint this is utterly inadequate.

The electricity department of the South Manchuria Railway Co. operates a power plant, which is located in the Japanese Settlement at Antung and which has been hitherto the only light and power plant in this district. The engines and generators of one plant are of British manufacture, while those of the second plant were made in Germany. The output of the first plant is 1,000 kilowatt hours and of the No. 2 plant 2,600 kilowatt hours per day. The motive power of the No. 1 plant is steam and of the No. 2 plant suction gas.

The lighting rate is 25 sen ($0.125 United States currency) per kilowatt hour, subject to a 10 per cent discount for payment of bills at the company's office within the first five days of the succeeding month, and with a minimum monthly charge of 30 sen ($0.15 United States currency) per light. Power rates for use other than lighting are 6 sen ($0.03 United States currency) an hour per contracted horsepower up to 200 hours a month, and 4 sen ($0.02 United States currency) an hour per contracted horsepower over 200 hours a month.

During the first week in July, 1918, the railway electricity department began the construction, immediately to the west of the Japanese settlement at Antung, of a new electric light and power plant, the cost of which is estimated at the equivalent of $210,000 United States currency. The generators, each of 1,000 kilowatts capacity, were purchased from an electric company in Japan. It was expected that the plant would be in operation by December, 1918. While the new plant will remedy the existing insufficiency of current for lighting purposes, it is intended primarily to furnish motive power for several new manufacturing enterprises which are expected to grow up in its immediate vicinity. The first of these is the Anto Yoko silk mill. In addition to this a box factory and several other smaller enterprises are being considered.

There are no waterworks in the Chinese city of Antung or in any of the interior towns of this district. The Japanese Settlement at Antung is served by the waterworks department of the South Manchuria Railway Co. The rates per cubic meter are as follows: For "luxury" use (fountains, etc.), $0.10; for industrial use, $0.05; for use in private residences, $0.025; for use in business offices, $0.015.

TREATY PORTS AND FOREIGN CONCESSIONS.

There are in this district three ports opened by treaty to foreign trade—Antung (which was opened by the Sino-American treaty of 1903), Fenghwangcheng, and Tatungkow. Antung, which is the only one of the three possessing any importance, has an estimated population of 48,538, composed of 40,548 Chinese, 7,930 Japanese, and 60 westerners. It is located on the western bank of the Yalu River 30 miles from the Korea Bay.

The only foreign concession is the Japanese Settlement at Antung. Permission to establish this was granted by the supplementary agreement to the Manchurian Protocol of 1905, and it was actually opened in 1906. The government of the Chinese city of Antung is in no way different from that of all Chinese cities; that of the Japanese Settlement is divided between the Japanese consul and a municipal council composed of all those taxpayers whose annual household tax amounts to 24 yen ($12 United States currency) or whose annual business tax amounts to 48 yen ($24). There are no limitations to foreign residence in the Chinese city. In the Japanese Settlement property may be leased by foreigners, but its purchase, while theoretically possible, is so hedged about with restrictions as to amount to only a 20-year leasehold.

Fenghwangcheng is a town of more than 18,000 inhabitants located to the west of Antung on the South Manchuria Railway.

Tatungkow, at the mouth of the Yalu River, is a village whose commercial importance has ceased to exist. There is no foreign concession or settlement at either Fenghwangcheng or Tatungkow.

The American and Japanese consulates at Antung are the only consulates in this district.

At Antung the conditions for trade with Japan and Korea are ideal, because of its proximity to the excellent railway and water connections, the large Japanese population, and the presence of Japanese banks and post and telegraph offices. The only American firm directly represented in Antung is the Standard Oil Co. of New York. The Singer Sewing Machine Co. has a Japanese agency.

The general conditions for trade with the United States are not good, by reason of the fact that practically none of the Chinese merchants are able to correspond in the English language and all prefer to deal with the man on the ground who has actual samples displayed and who will attend to all of the annoying complexities of importation and deliver the goods cleared of customs at Antung. The same statement holds good as to the conditions for trade with all countries other than Japan, for that country alone possesses the machinery for trade and, not unnaturally, prefers to use this machinery for the advantage of its own manufacturers and exporters.

FINANCE AND BANKING.

The currency having the most general use throughout the district is the "small-coin dollar," a unit representing five Chinese silver 20-cent pieces, but not itself coined. Except at Antung and Fenghwangcheng the greater part of the trade is carried on by the primitive method of barter. The farmer is given credit in the small village store until his crop is harvested, when he turns his produce over to the manager and thereby settles his debt, being either given credit in the store's books for any balance in his favor or paid in paper notes issued by the store and used as currency in that neighborhood. The relation of the small country store to the large firm in Antung is analogous to that of the farmer and the country store, for the country firm is given credit in the Antung firm's books for the stock of imported goods needed, and all of the produce—beans, cereals, and silk cocoons—that it has received from the farmers it sends to Antung for the large firm to sell. After the application of the proceeds of the sale of produce to the small country store's indebtedness the balance is often forwarded upcountry in fractional silver coins. In Antung and vicinity the common unit of business transactions is the "tael," the value of an ounce of silver of a certain fixed fineness. Silver dollars are used to a limited extent, but fractional silver is the form of currency that actually changes hands even in tael transactions. Japanese yen notes are used by the Japanese in trading among themselves and to a small extent by Chinese in trading with Japanese firms. The values in terms of United States currency of these units of exchange, with the exception of the Japanese yen, fluctuate greatly, but, on an average, are normally as follows: Antung tael, $0.69 United States currency; small coin dollar, $0.39; Japanese yen, $0.4985. The rates of exchange between yen, taels, and small-coin dollars also fluctuate daily.

The principal obstacles to American business in the line of finance are (1) the lack of stability in exchange rates and (2) lack of credit facilities.

There are in Antung three Japanese banks—the Antung branch of the Bank of Chosen, the Antung Savings Bank, and the Antung Bank. None of these are able to negotiate foreign paper other than Japanese or to issue drafts on any foreign country save Japan. The average rates of interest paid and charged by these banks are as follows: Current deposit, 0.005 yen per day per 100 yen on deposit; fixed deposit, 4½ per cent per annum; overdraft, 0.02 to 0.027 yen per day per 100 yen; loans against real estate, 0.019 to 0.028 yen per day per 100 yen; loans against crops, 0.027 to 0.028 yen per day per 100 yen.

There are also several large Chinese banks in Antung. Of these only one, a branch of the Bank of China, is conducted along modern lines. The rates of interest charged and paid by this bank are as follows: Current deposit, 0.0025 tael per day per 100 taels on deposit; fixed deposit, 6 per cent per annum; guaranteed loans, 12 per cent per annum. Overdrafts are not permitted even by arrangement. Loans against real estate or crops are not made.

The two old-style Chinese banks do not receive either current or time deposits and do not discount commercial paper. Their business consists almost entirely of making transfers to cities in Manchuria and China. Short-time loans are made at 1 to 1.3 per cent per month, and loans against real estate or crops at $\frac{7}{10}$ to $\frac{8}{10}$ of 1 per cent per month.

MANUFACTURING AND OTHER INDUSTRIES.

The principal industries in this district are agriculture, sericulture and spinning, bean milling, and lumbering. The weaving of rough cotton cloth has also just commenced and is likely to increase steadily unless political causes prevent.

Since, with the exception of Antung and Fenghwangcheng, the largest towns in this district only possess populations of from 2,500 to 3,000, practically all industries except agriculture, sericulture, and lumbering are confined to the two cities mentioned.

At the beginning of 1919 there were in operation in Antung a total of 22 large and 35 small silk filatures owned and operated by Chinese and 2 large Japanese-operated filatures. The number of reels in one of the larger filatures ranges from 300 to 1,200 and in the smaller ones from 25 to 100. Exact statistics are not available, but estimates place the number of reel stands at 14,400, as compared with 4,500 during 1917. The total number of workmen employed in the filature industry during 1918 is estimated at 15,500.

The tendency of filature owners to move their establishments from Chefoo to Antung in order to operate at the source of supply continued throughout 1918. To this has now been added the further plan of moving the pongee-weaving industry from Chefoo to Antung, and, in order to insure success and eliminate wasteful competition, it is proposed that a single large weaving mill shall be established, the capital of which is to be contributed by the owners of the silk filatures. However, this plan has not taken on definite form as yet. As a small beginning in this direction, six hand-power weaving establishments, employing an average of 25 workmen each, were operated during 1918.

A Japanese company, reported to have a capitalization equal to $500,000 United States currency and known as the Anto Yoko Manchu Kemmo Boseki Koba, began the construction during 1918 of a large factory in which it is planned to spin silk waste and to manufacture various fabrics. The machines are to be of a special variety suited for the purpose and are to be operated by electricity. When this factory for the utilization of the so-called silk "waste" (the tangled innermost and outermost threads of the cocoons) is put into operation, and when the above-mentioned pongee-weaving mill materializes, Antung will be the center not only of cocoon production and "tussah" reeling but of the final processes of manufacture as well.

There are in Antung 14 bean mills owned and operated by Chinese, each employing from 15 to 30 workmen. In these mills the oil is pressed from the soya bean and the residue is then made into large, flat, round cakes, which are exported to Japan and South China ports for use as cattle food and as a fertilizer. The engines in these mills are principally of Japanese manufacture and are said to have a very low efficiency.

One bean mill similar to those just described is owned by Japanese in their settlement in Antung but is leased to Chinese, who operate it.

There is only one power mill in Antung that weaves cotton cloth. This mill produces daily about 80 bolts of 40-yard length rough cotton cloth, and 720 pairs of cotton socks. The power is steam, and inexpensive looms of Japanese manufacture are used. Besides this mill there are about 30 small weaving mills in which hand looms are used, and which also knit cheap cotton socks that retail for as little as 3½ cents United States currency per pair.

In the year 1918 there were in operation in Antung 2 large and 10 small sawmills, 1 box factory, and a match-stick factory.

The Okura Copper Smelter and a number of smaller industrial plants were completed and put into operation in 1918.

Realizing the opportunities for woodworking establishments in Antung, where a number of varieties of wood suitable for furniture and cabinet work are offered at a comparatively low price, the Japanese consul established a woodworking experimental school in the Japanese Settlement at Antung in 1915, hoping by demonstrating the possibilities to induce capitalists to start industrial woodworking establishments, but up to June, 1918, none had been established or planned.

Japanese interests are contemplating the establishment of a mill in Antung for the manufacture, on a large scale, of paper from Korean wood pulp. The proposed company is to be capitalized at $2,500,000.

It is probable that, unless political developments prevent, much of the cheap cotton cloth consumed in this district will be manufactured in the city of Antung. As has been already stated, one small mill is now in operation, and if this venture continues to be a success Chinese capitalists will certainly find such mills an attractive investment. At present practically all the cotton goods sold in this district are those of Japanese manufacture which, because of their cheapness, have in recent years displaced the American and British products. In a similar manner goods manufactured in Antung will, unless subjected to too high a tax, capture the market by virtue of their lower cost of production.

The dearth of shipping and the consequent high prices obtainable for any kind of bottoms has resulted in an attempt at Antung to build small sailing vessels equipped with auxiliary oil motor engines. Up to June, 1918, the ships built had not proved a success, but it is now planned to construct a suitable dockyard just below the Japanese Settlement at Antung, on the bank of the Yalu River, and there regularly to construct auxiliary powered sailing vessels of several hundred registered tons suitable for plying to Japan, Chosen, and North China. As Antung is the distribution center for Yalu River timber, it is probable that after the experimental stage is past this industry will attain considerable success, although, in the period following the war, the demand will again be for steel rather than wooden shipping.

COMMERCE OF THE PORT: INTRODUCTORY SUMMARY.

The table below gives the total imports and exports, foreign and Chinese, through the Maritime Customs at Antung during the years 1908, 1913, and 1918:

Imports and exports.	1908	1913	1918
Imports of foreign goods:			
From foreign countries and Hongkong	$947,368	$4,545,371	$26,017,521
From Chinese ports	846,049	644,137	905,528
Total foreign imports	1,793,417	5,189,508	26,923,049
Reexports of foreign goods:			
To foreign countries and Hongkong	443,692	133,204	794,874
To Chinese ports	5,352	40,500	16,854
Total foreign reexports	449,044	173,704	811,728
Net total foreign imports	1,344,373	5,015,804	26,111,321

Imports and exports.	1908	1913	1918
Imports of Chinese products	$474,963	$857,147	$3,225,412
Reexports of Chinese products:			
To foreign countries and Hongkong	22,161	30,895	68,298
To Chinese ports	3,301	10,959	231
Total Chinese reexports	25,462	41,854	68,529
Net total Chinese imports	449,501	815,293	3,156,882
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	447,270	2,671,541	13,981,958
To Chinese ports	1,657,800	2,305,710	4,659,691
Total exports of local origin	2,105,070	4,977,251	18,641,649
Gross value of the trade of the port	4,373,450	11,023,906	48,790,109
Net value of the trade of the port	3,898,944	10,808,348	47,909,852

EXPORT TRADE.

As the Chinese Customs Service did not establish a customhouse at Antung until 1907, the first year for which complete returns are available is 1908. It is therefore only possible to examine the growth of the trade of this port since that year.

The following figures indicate the value of the net exports from Antung for the past 11 years: 1908, $1,521,898; 1909, $2,789,113; 1910, $1,721,454; 1911, $2,907,219; 1912, $4,099,202; 1913, $4,977,251; 1914, $3,849,821; 1915, $5,389,422; 1916, $7,131,634; 1917, $13,772,570; 1918, $18,641,649.

It will be seen from this statement that in 11 years the value of the net exports has increased by about 1,125 per cent, and that, with the exception of the years 1910 and 1914, this increase has been a constant one.

The following figures, representing percentages of the total value of Antung's export trade, will give a clear idea of the relative importance of the chief commodities exported:

Exports.	1914	1915	1916	1917	1918
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*
Beans and bean products	24	24	26	37	27
Silk and silk products	28	33	24	13	13
Timber	22	17	23	11	13
Coal	14	14	17	11	11
Cereals	6	9	1	$\frac{9}{10}$	(a)
All other exports	6	3	9	$27\frac{1}{10}$	(a)

a Figures not available.

The principal factor facilitating the export trade of the district is the connection with Chosen and Japan furnished by the Chosen Railway, which connects with the South Manchuria Railway over the American-built steel bridge that spans the Yalu River at Antung. Another important factor is the Yalu River itself, which during eight months in each year is navigable to within a few miles of Antung city by small ocean-going steamers and for over 350 miles above Antung by native junks of 10 tons burden. Thus the produce of this district can readily be shipped to the principal markets, Japan and Chosen, either by rail or by water, and to the rest of the world by sea. The presence in Antung of a large Japanese commercial population, with Japanese banks, post office, and telegraph office, also greatly facilitates exportation to Japan and its possessions.

The condition that handicaps exportation to countries other than Japan is the small number of European and the utter absence of American firms engaged in an export business. The large Japanese export companies are so busily engaged in handling the large and constant volume of exports to Japan and Chosen that they have but little time or inclination to undertake export trade to foreign countries.

The two commodities, silk and beans with their products, which in 1917 constituted 50 per cent of the total value of exports, are brought to Antung city in the manner described under the headings "Communications" and "Finance and banking." It is seen, therefore, that the foreign firms engaged in export trade make their purchases not from the producers direct but from large Chinese concerns located in Antung and in other towns served by the railway. Timber is brought down the river in rafts and likewise is not marketed until it reaches Antung.

SILK AND SILK PRODUCTS.

In the Antung district the silkworm is known to the Chinese as the "mountain silkworm" and has been variously classified as *Antherea pernyi*, *Bombyx pernyi*, and *Bombyx fertoni*. Its food is the leaf of a species of dwarf oak, *Quercus mongolicus*, which is indigenous to southeastern Manchuria and grows uncultivated and in great abundance on the sides of the otherwise unproductive and rocky hills that traverse this entire district. In order to increase the foliage these trees are also carefully planted and pruned.

Two crops of cocoons, one in the spring and another in the autumn, are produced annually. The spring crop, which is put on the market early in July, is the smaller of the two and is used principally to produce eggs for the autumn crop, which is usually marketed after the middle of October.

Cocoons are packed by the farmer in large woven willow baskets containing about 30,000. A basket freshly packed weighs approximately 400 pounds avoirdupois. The weight, however, is reduced to about 267 pounds by the following spring as a result of the shriveling up of the chrysolides during the dry winter season.

The South Manchuria Railway, carts, boats, and (in winter) sledges are used to transport the cocoons to Antung, where they are stored in large walled or fenced inclosures and in warehouses until sold. Cocoons and spun silk are sold through large firms in Antung which, through their familiarity with both the yearly production and the market demands, are enabled to act as brokers and collect a commission for their services from both the seller and the purchaser. The purchasers, aside from the local filature owners, are chiefly representatives of filatures in Chefoo, Shanghai, and Japan, who come to Antung as soon as the season opens to secure their stocks.

Besides the cocoons, silk is exported in the form of "tussah" or reeled silk, as "silk waste," and in the woven form known as "pongee."

Tussah is divided into two classes, "native" and "filature." The term "native" is applied to that reeled by hand or foot power, which, being usually produced on a very small scale and in many localities, lacks uniformity. Practically all of the tussah exported from Antung comes in this class. The outermost and innermost threads of a cocoon are known as "waste," and, since they are composed of an inextricable mass of fibers, must be chopped up, combed, carded, and spun like cotton.

Cocoons are shipped principally to Chefoo and Japan; tussah to Shanghai, Chefoo, and Japan; and waste to Shanghai. The cocoons and tussah exported to Chefoo are there manufactured into pongee fabrics, while much of the tussah and waste sent to Shanghai and Japan ultimately find their way to the United States and Europe.

The amounts of cocoons, "native" tussah, and waste exported from Antung during 1918 were as follows: Cocoons, 12,851,866 pounds, valued at $1,729,974; tussah, 296,533 pounds, valued at $433,166; waste, 527,200 pounds, valued at $259,441. Roughly estimated, the number of cocoons used to produce the tussah and waste exported was about 150 per cent of the number exported unmanufactured.

BEANS.

The value of the beans and bean products exported from Antung during the year 1918 constituted 27 per cent of the total value of exports and amounted to $4,941,982. The bean that constitutes the great bulk of this export is known commercially as the soya bean and is grown practically throughout this entire district.

The bean crop ripens earlier in the southern section of the district than in the northern but is practically all harvested in normal years by the end of September. However, because of the superior transport facilities enjoyed during the winter, when roads and rivers are firmly frozen, it is at this time that the bean harvest is assembled at the various interior towns which serve as collection centers and from which it is forwarded to Antung in the spring.

The soya bean is exported in three forms—as "raw beans" (natural condition), as bean oil, and as bean cake.

The proportion of the export of beans, cake, or oil that goes to any given destination varies from year to year according to several determining factors. However, the following statement, which can only be regarded as approximate and not as exact, gives a general idea (through average percentage) of the destinations of the soya bean products exported from Antung: Beans—Japan, 76 per cent; Shanghai, 6 per cent; Chosen (Korea,) 5 per cent; other Chinese ports and Dairen, 13 per cent. Bean cake—Japan, 72 per cent; Shanghai, 20 per cent; Chosen, 1.8 per cent; other Chinese ports and Dairen, 6.2 per cent. Bean oil—Japan, 31 per cent; Shanghai, 36 per cent; Chosen, 21 per cent; other Chinese ports and Dairen, 12 per cent. It will be seen that Japan and Chosen (Korea) receive eight-tenths of the beans, almost three-fourths of the bean cake, and slightly more than one-half of the bean oil exported.

Beans are exported packed in gunny bags which, when filled, weigh about 175 pounds; bean cake in the form of large, round, flat cakes weighing on an average 75 pounds; and bean oil in empty 5-gallon kerosene oil cans, two of which are packed in a wooden case.

Most of the beans exported are doubtless milled and transformed into cake and oil on reaching their destination. Bean oil is put to many uses, but one that is of common interest is as the base of practically all table sauces. Bean cake is principally used as a fertilizer for rice and in China as a cattle food.

The trade in beans is a highly speculative one, since the market is contingent on two factors, the bean crop and the price of rice in Japan. When it is anticipated that the price of rice in Japan will be high, brokers will buy "forward" beans from the large Chinese firms in Antung. This form of speculation is one that has great charm for Chinese merchants, and there are few firms in Antung that do not "take a flier" occasionally in beans.

TIMBER.

During the year 1918 the value of the exports of timber amounted to 13 per cent of the total value of exports from Antung.

The forests from which this timber is cut are situated along the upper reaches of the Yalu River and its tributaries at distances varying from 250 to 400 miles from Antung. As already stated, the logs are floated to the Antung market in the form of rafts. The principal kinds of timber felled are pine, fir, larch, walnut, cassia, oak, and elm. Of these pine constitutes the largest part, with fir coming second. The timber exported goes principally to Chefoo and other smaller ports of Shantung Province, to Tientsin, Shanghai, and Dairen, and is sent abroad only in negligible quantities.

Timber is sold to buyers from the above-mentioned ports who come to Antung when the Yalu River opens to navigation and remain there throughout the season. Terms are usually cash on delivery, and prices fluctuate greatly.

The Yalu Timber Co., a joint Chinese-Japanese concern, is the largest timber firm in the district and enjoys many special privileges. In addition, there are 12 large, and many more smaller, Chinese firms dealing in timber.

COAL.

The coal whose export constituted 11 per cent of the total value of exports from Antung in 1918 is mined near Mukden (see chapter on Mukden district, p. 217) and only passes through this district on its way to Chosen (Korea).

CEREALS.

Three cereals, millet, corn, and kaoliang (sorghum), constituted $\frac{9}{10}$ of 1 per cent of the value of the 1917 exports. Of these millet is the most important, amounting to about three-fifths of the total. All three cereals grow practically throughout the entire district, and the exports of all go principally to Chosen (Korea).

STATISTICS OF EXPORTS.

The figures in the following table represent the principal articles exported through the Maritime Customs at Antung in 1908, 1913, 1915, 1917, and 1918:

Articles.	1908	1913	1915	1917	1918	
	Quantity.	Quantity.	Quantity.	Quantity.	Quantity.	Value.
Bean cake............pounds..	30,478,800	72,644,400	100,509,200	226,336,133	194,100,933	$2,952,421
Beans.....................do....	3,051,600	15,233,200	45,132,400	77,361,066	71,219,600	1,617,323
Bones, refuse.............do....	121,333	238,800	231,600	9,881,200	10,478,800	(a)
Bricks and tiles.........pieces..	....	360,080	161,618	652,936	255,815	(a)
Cereals:						
Kaoliang (sorghum)................ pounds..	....	3,959,733	1,677,200	454,800	(b)	(b)
Maize.................do....	1,158,266	2,983,466	5,781,333	12,068,667	15,162,933	237,424
Millet.................do....	....	46,880,200	29,356,800	42,809,200	(b)	(b)
Coal.....................tons..	....	140,403	189,099	315,740	313,296	2,055,693
Copper ore............pounds..	66,666	....	....	627,867	11,067	(a)
Iron and steel manufactures.................... pounds..	....	608,000	269,733	246,133	542,666	40,413
Iron pans.................do....	....	....	77,866	184,000	148,800	(a)
Medicines.............value....	$1,428	$33,469	$20,502	$32,376	....	39,335
Mushrooms...........pounds..	69,600	25,600	13,200	6,400	23,600	(a)
Oil, bean.................do....	4,000	384,133	1,044,400	6,230,000	4,329,066	372,238
Samshu..................do....	....	1,413,066	561,466	269,867	240,133	20,047
Silk:						
Wild, raw, not filature..................... pounds..	1,066	....	1,194,266	371,333	296,533	433,166
Cocoons, wild........do....	12,856,800	16,024,400	22,487,600	6,240,267	12,851,866	1,729,974
Waste...............do....	432,800	612,166	974,533	252,000	527,200	259,441
Cocoons, refuse.......do....	33,066	96,933	132,933	400	28,400	(a)
Pongees..............do....	666	11,866	22,666	5,867	27,066	38,514
Silkworms, dried.........do....	3,466	303,466	454,533	860,933	2,087,467	(a)
Skins (furs), sheep......pieces..	27	14,330	14,224	27,548	3,724	(a)
Tea:						
Black.............pounds..	....	....	666	(a)	....	....
Green.................do....	....	....	133	(a)	....	....
Timber, beams:						
Hardwood.......pieces [c]....	2,486	12,755	19,478	28,809	53,318	(a)
Softwood..........do. [c]....	81,710	276,759	442,508	346,529	410,509	(a)
Timber:						
Planks, softwood ...sq. ft..	11,049	6,305,744	2,797,305	9,581,112	10,391,533	(a)
Poles, softwood.....pieces..	10,740	18,848	22,602	70,167	63,047	89,548
Tobacco, leaf and stalk.........................pounds..	76,400	39,200	41,200	37,867	27,867	(a)
Vermicelli and macaroni.do....	....	....	42,400	46,533	55,200	(a)
Yeast..................value...	....	....	$14,416	$18,077	....	16,653

[a] Not available.

[b] Millet and kaoliang combined, 72,645,333 pounds, valued at $1,964,369.

[c] "Lien" of 8 feet unit.

The following table shows the value in American dollars of the five principal articles exported to foreign countries and Chinese ports through the Antung Maritime Customs during the years 1908 to 1918, inclusive:

Years.	Coal.	Cereals.	Timber.	Silk and silk products.	Beans and bean products.
1908	$348	$2,049	$175,210	$1,633,714	$283,758
1909	3,405	272	376,850	1,997,680	320,510
1910	1,387	665	275,725	1,130,677	250,815
1911	12,106	4,072	603,450	1,445,983	727,105
1912	234,290	29,991	657,036	1,937,575	1,039,785
1913	522,721	708,380	747,816	1,765,488	994,785
1914	97,610	263,293	840,305	1,071,838	558,858
1915	115,729	414,633	830,628	1,785,992	1,338,018
1916	1,207,279	....	1,629,491	1,726,024	1,837,073
1917	1,534,493	104,805	1,530,124	1,781,199	5,176,950
1918	2,055,693	150,347	2,459,979	2,461,095	4,941,982

While considerable portions of the bean oil and "tussah" (reeled wild silk) produced in the Antung district are eventually consumed in the United States, there are no direct shipments of these or any other goods.

IMPORT TRADE.

This district is sparsely settled and, with the exception of Antung and Fenghwangcheng, possesses no cities. In consequence of the ranges of mountains and hills that traverse it throughout, there are no large arable plains lending themselves to agricultural enterprises on a large scale. Its sparse population, therefore, is relatively a poor one, whose wants are for the primal necessities of life and not for luxuries or semiluxuries. Accordingly Antung owes its importance as a port for the importation of foreign merchandise not to the goods consumed in this district but to those used in Mukden and points beyond, which only pass through Antung as a port of entry.

Four circumstances have combined to raise the city of Antung to its present importance as a port for the importation of foreign merchandise into Manchuria: (1) The completion of the Chosen Railway, which, through Chosen, connects the Yalu River with Japan; (2) the opening of Antung as a port for foreign trade in 1907; (3) the completion of the standard-gauge railway from Antung to Mukden in 1911; and (4) the erection of the 3,100-foot steel bridge across the Yalu River in the same year, by means of which the Chosen and South Manchuria Railways now furnish a through service from Fusan to Changchun. When this system of railways was completed Antung at once became the natural gateway through which all rail-borne merchandise from Japan enters Manchuria. When the one-third reduction in duty on goods imported into Manchuria from or through Chosen went into effect in 1913 the rail route through Antung became cheaper for the Japanese exporter than the water route through Dairen or Newchwang. This advantage of the Antung route was further enhanced when, in 1914, the South Manchuria Railway granted a special discount, amounting to 30 per cent, on 11 specific through imports from Japan via Chosen when carried over its Antung-Mukden branch.

The comprador system is in use by the foreign import firms at Antung.

All the large import firms operating in Antung have their own warehouses in which imported goods are stored until forwarded to interior points.

Goods intended for this district should be packed so as to be able to stand exposure to weather and the roughest of handling. Parcels should not be too bulky or heavy, as otherwise they can not readily be transported into the interior. In general, parcels measuring not more than 3 by 4 feet and weighing 150 pounds or less are well suited to local conditions.

Up to and including the year 1912 flour constituted the most valuable item in the list of articles imported through Antung. Commencing in 1913, however, cotton goods jumped into the leading position and their value now constitutes more than one-half of the total value of imports. This change has been brought about by the diversion of the imports of Japanese cotton goods from the other Manchurian ports to Antung, as a result of the one-third reduction of import duty on goods imported into Manchuria from or through Chosen (Korea) and the reduction in railway freight over the Antung-Mukden branch of the South Manchuria Railway, which have just been described.

The following table shows the value of the five principal imports for the years 1908 to 1918, inclusive:

Years.	Cotton goods.	Flour.	Kerosene.	Sugar.	Metals.
1908	$146,821	$331,406	$47,923	$47,603	$20,773
1909	155,652	264,969	67,508	36,292	17,531
1910	229,769	536,656	34,936	78,194	75,911
1911	334,685	468,757	49,036	62,477	259,675
1912	381,727	697,573	73,699	136,621	84,316
1913	2,173,285	715,661	162,171	102,394	81,479
1914	6,045,038	492,759	134,852	65,097	173,501
1915	5,532,104	492,230	124,369	96,831	45,162
1916	8,276,439	413,933	168,780	147,896	169,251
1917	16,369,314	113,245	277,794	303,706	228,914
1918	(a)	(a)	90,389	215,737	(a)

a Figures not available.

The figures in the following table represent the principal articles imported through the Maritime Customs at Antung in 1908, 1913, 1915, and 1918:

Articles	1908	1913	1915		1918	
	Quantity.	Quantity.	Quantity.	Value.	Quantity.	Value.
FOREIGN COTTON GOODS.						
Shirtings, grey, plain:						
American .... pieces..	8,898	6,420	1,715	$2,984	....	....
English .... do....	13,111	12,632	9,805	23,281	8,234	$56,875
Japanese .... do....	....	5,454	17,965	40,259	77,931	553,181
Sheetings, grey, plain:						
American .... do....	66,211	32,822	18,056	43,159	322	1,997
English .... do....	....	738	1,420	3,546	590	4,470
Japanese .... do....	7,980	1,275,316	718,071	1,281,788	480,934	2,690,307
Shirtings, white .... do....	25,013	39,422	25,026	61,288	86,165	610,056
Drills:						
American .... do....	15,734	3,900	3,545	9,845	....	....
English .... do....	4,410	90	175	(a)	....	....
Japanese .... do....	2,765	67,781	274,371	614,161	139,816	776,274
Jeans:						
English .... do....	20,546	29,951	15,963	39,256	4,870	27,378
Japanese .... do....	....	16,481	181,378	326,643	292,994	1,508,547
T-cloths:						
English .... do....	....	....	650	7,558	301	(a)
Japanese .... do....	....	....	6,172		13,299	(a)
Cambrics, lawns, and muslins, white, dyed, and printed, pieces	1,394	2,515	2,818	1,914	8,248	19,500
Chintzes and plain cotton prints .... pieces..	2,531	1,307	....	....	54,726	(a)
Printed T-cloths .... do....	28	20	....	....	....	....
Turkey-red cottons and dyed T-cloths .... pieces..	3,859	5,330	6,203	10,031	22,056	73,958
Cotton italians, venetians, crape, and lastings, plain, fast black .... pieces..	1,452	4,523	9,653	33,436	1,110	8,992
Cotton italians, venetians, crape, and lastings, plain, colored .... pieces..	14,538	4,832	1,178	(a)	16,690	106,525
Cotton italians, venetians, crape, and lastings, figured, pieces	3,246	7,050	1,846	5,537	2,888	19,109
Cotton flannel .... pieces..	2,612	10,235	35,871	75,201	20,459	114,497
Dyed drills and silesias .. do....	....	....	23,426	(a)	32,040	(a)
Fancy woven cottons ... yards..	98,195	285,164	1,397,222	(a)	3,158,388	(a)
Japanese cotton cloth .... do....	87,076	316,869	44,970,778	1,982,985	45,852,607	4,084,126
Velvets and velveteens ... do....	....	33,426	16,105	3,008	44,879	21,417
Cotton blankets .... pieces..	71,714	62,337	50,383	20,648	56,005	52,617
Handkerchiefs .... dozens...	....	....	2,572	3,137	18,382	2,434
Handkerchiefs, Japanese . do....	....	....	8,208			
Towels .... do....	33,293	54,547	168,891	56,735	119,481	122,600
Cotton yarn:						
English .... pounds..	13,200	400	4,800	(a)	6,971,066	3,047,472
Indian .... do....	26,400	36,800	103,333	(a)		
Japanese .... do....	257,600	789,200	6,903,066	(a)		

a EDITOR'S NOTE.—The figures for these values are not available; they are not given either in the published returns of the Chinese Maritime Customs or in the reports from the Antung consulate.

Articles.	1908	1913	1915		1918	
	Quantity.	Quantity.	Quantity.	Value.	Quantity.	Value.
FOREIGN COTTON GOODS—con.						
Cotton thread:						
In balls..........pounds..		16,533	37,600	$14,338	26,666	$24,103
On spools..........gross..		6,490	8,959	13,329	30,455	107.544
Poplins, figured........pieces..			4,651	31,216	10,172	124,507
CHINESE COTTON GOODS.						
Sheetings..............pieces..	2,360	4,242	20,142	56,504	42,610	318,733
Drills..................do....		360	8,460	23,724	10,551	79,358
Nankeens............pounds..	263,600	212,933	329,066	66,631	541,466	295,734
Cotton yarn.............do....	158,400	62,400	68,666	10,667	74,933	37,929
FOREIGN WOOLEN GOODS.						
Blankets and rugs....pounds..	35,875	2,708	1,518	(a)	2,597	2,993
Cloth, broad, medium, habit, and Russian..........yards..		9,069	1,493	(a)	700	(a)
Long ells..............pieces..			444	1,864	300	2,552
Woolen and worsted yarn, pounds....................			6,666	3,558		
FOREIGN MISCELLANEOUS PIECE GOODS.						
Silk piece goods.......pounds..			223,466	4,749	2,130,400	161,005
Silk piece goods, mixtures, pounds....................			1,049,466	12,374	1,157,066	32,706
FOREIGN METALS.						
Copper ingots and slabs, pounds....................		121,600			207,067	(a)
Iron and mild steel, new:						
Bars..............pounds..			65,200	1,200	241,066	17,234
Nails and rivets......do....	245,200	279,466	215,066	6,376	260,000	171,463
Sheets and plates....do....	91,800	206,266	91,733	1,933	82,266	9,723
Wire..................do....			32,400	(a)	42,333	(a)
Iron and mild steel, old...do....	437,333	1,631,466	1,856,533	16,238	424,933	21,276
Iron, galvanized:						
Sheets and plates....do....	303,466	285,733	78,266	2,886	131,466	17,291
Steel, bamboo, bars, etc., pounds....................	128,800	152,400	88,533	(a)	79,333	(a)
FOREIGN SUNDRIES.						
Bags, all kinds.......number..		486,834	3,241,737	143,306	4,801,571	510,517
Beans and peas.......pounds..			358,266	(a)	519,067	(a)
Bêche de mer.............do....		50,800	101,466	14,959	165,600	44,461
Braid, cotton...........value..				18,776		481
Candles...............pounds..	55,733	165,333	111,333	6,904	186,533	23,664
Cement..................do....	439,466	3,344,000	1,166,933	(a)	1,550,000	(a)
Cereals:						
Maize.................do....		841,200	747,200	(a)	81,467	(a)
Rice..................do....	258,533	7,896,266	23,867,733	460,058	16,177,066	698,414
Charcoal.................do....	1,072,800	108,933	231,733	(a)	388,800	(a)
Chinaware..............value..				6,910		97,740
Cigarettes..........thousands..	7,755	42,918	52,653	69,696	337,324	394,535
Dyes, colors, and paints:						
Aniline.............value..		$11,549				6,956
Indigo, artificial..pounds..	174,400	171,333	224,933	67,489	18,800	(a)
Fish:						
Dried and salt.......do....		1,016,000	1,081,733	(a)	2,571,200	(a)
Fresh.................do....		1,562,000	1,256,400	(a)	2,881,600	(a)
Flour.....................do....	16,078,933	22,753,333				
Fruits, fresh.............do....		1,801,600	1,033,733	14,431	5,292,000	146.764
Glass, window..........boxes..			922	(a)	3,142	(a)
Hair: Animal, pig and cow, pounds....................		650,133	210,333	(a)	310,800	(a)
Matches.................gross..	233,223	257,283	258,724	31,624	74,750	25,139
Medicines..............value..				86,954		164,344
Milk, condensed, in tins, dozens....................			3,296	(a)	4,678	(a)
Needles............thousands..			16,834	(a)	97,317	(a)
Oils:						
Engine..American gallons..			23,118	2,252	36,535	18,576
Kerosene—						
American........do....	577,120	673,690	558,310	70,584	164,600	58,389
Sumatra.........do....	277,815	471,315	661,580	73,852	72,570	30,164

[a] EDITOR'S NOTE.—The figures for these values are not available; they are not given either in the published returns of the Chinese Maritime Customs or in the reports from the Antung consulate.

Articles.	1908	1913	1915		1918	
	Quantity.	Quantity.	Quantity.	Value.	Quantity.	Value.
FOREIGN SUNDRIES—contd.						
Paper and cardboard..pounds..	...	1,698,666	834,266	$84,566	3,011,466	$416,714
Pepper....do....	80,000	80,000	76,133	(a)	120,933	(a)
Seaweed....do....	...	1,200,133	574,533	(a)	1,035,733	(a)
Skins (furs), all kinds...pieces..	...	...	86,655	30,229	150,698	(a)
Soap:						
Bar....pounds..	...	180,400	153,466	(a)	338,133	(a)
Toilet and fancy...dozens..	...	44,666	76,011	(a)	177,319	(a)
Soda....pounds..	...	1,744,400	1,015,866	(a)	90,667	(a)
Soy....do....	...	366,666	354,800	8,901	789,466	33,774
Sugar:						
Brown....do....	440,666	807,466	613,600	129,199	3,888,266	215,737
White and refined...do....	3,358,000	2,872,133	3,440,800			
Candy....do....	166,800	211,333	16,266	(a)	353,333	(a)
Timber:						
Hardwood......cubic feet..	...	4,357	168	(a)	13,571	(a)
Beams, poles, and piles, softwood....square feet..	...	920,753	1,548,475	(a)	12,297,560	(a)
Planks, softwood....do....	...	109,095	21,215	(a)	235,997	(a)
Tobacco....pounds..	...	...	287,466	(a)	1,142,133	101,514
Umbrellas....number..	40,846	55,155	23,063	(a)	38,199	(a)
Wines, beer, spirits, etc.:						
Sake....pounds..	374,400	911,333	1,181,600	(a)	3,477,200	(a)
Beer and porter.....value..	$10,211	$13,140	...	5,584	...	64,280
Spirits of wine.....gallons..	...	...	2,697	(a)	...	...
CHINESE SUNDRIES.						
Cereals:						
Millet....pounds..	...	...	159,866	(a)	...	...
Rice....do....	...	...	538,266	20,383	4,508,666	151,793
Cigarettes....do....	116,400	81,800	100,666	24,424	44,400	30,111
Coal....tons..	...	636	1,506	(a)	1,997	(a)
Cotton, raw....pounds..	538,266	829,200	902,266	80,063	1,160,400	348,108
Flour....do....	2,992,133	8,372,000	29,289,066	491,873	25,745,333	1,060,163
Fruits, fresh....do....	...	946,400	695,066	(a)	5,292,000	(a)
Grass cloth....do....	...	...	31,200	10,832	18,000	15,551
Groundnuts....do....	...	...	89,200	(a)	...	...
Macaroni and vermicelli.do....	...	...	171,066	(a)	...	...
Medicines....value..	...	$4,879	...	3,265	...	164,344
Paper....pounds..	...	1,698,666	1,685,466	71,676	1,237,066	133,196
Paper, joss....do....	...	109,600	120,533	15,402	106,533	31,427
Shoes and boots, silk and cotton....pairs..	...	...	4,958	(a)	...	...
Silk:						
Piece goods.......pounds..	15,200	14,933	13,866	(a)	...	...
Pongees, Shantung..do....	4,133	266	1,066	(a)	...	...
Sugar, brown....do....	...	...	46,133	(a)	746,533	(a)
Tea:						
Black....do....	140,933	187,066	139,200	18,594	108,266	31,216
Green....do....	73,733	5,600	2,133	289	129,333	32,809
Tobacco, prepared.......do....	206,133	275,066	295,733	30,985	108,366	28,947

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[a] EDITOR'S NOTE.—The figures for these values are not available; they are not given either in the published returns of the Chinese Maritime Customs or in the reports from the Antung consulate.

Because of the absence of statistics showing the country of origin of goods, it is only possible to give the following approximate estimate of the proportion of the total value of imports into Antung coming from the various countries: Japan (including Chosen), 97 per cent; Great Britain, 1½ per cent; United States, 1 per cent; Dutch Indies, ½ per cent; all other countries, ½ per cent.

An examination of the table of imports reveals the fact that while in 1908 American shirtings, sheetings, and drills practically held the leading position, by 1918 they had suffered not only a relative but even an absolute decrease. This has been occasioned by the advantages of direct representation, geographical proximity, reduced duty, and low transportation charges enjoyed by the Japanese cotton manufacturers. As is stated elsewhere in this chapter, at least two of these advantages may also be enjoyed by American manufacturers.

Prior to the outbreak of the European war the larger part of the imported foreign flour was of American origin, but its place has been taken by flour milled in Shanghai. Whether, after normal conditions have been restored, American flour can recapture its former position, is very doubtful, because of the increased capacities and proximity of the Shanghai, Tiehling, and Harbin mills.

Practically all of the kerosene oil is imported by two companies, the Standard Oil Co. of New York and the Asiatic Petroleum Co. (British), though a small quantity of low-grade Japanese kerosene oil was imported during a recent year. The former company has an American manager stationed in Antung who has charge of his company's sales throughout this district.

The bulk of the sugar imported into this district is manufactured in Hongkong by a British firm and is brought to Antung in the company's own steamers. A considerable proportion of the cigarettes imported are of American manufacture but are marketed by a British corporation, which keeps a European manager stationed in Antung city.

In addition to the lines just mentioned, in the supplying of which American merchants have a share, there should be a good but limited market for the following goods: Inexpensive but highly ornamented clocks and watches; axes; cheap perfumes; cheap but colored and highly scented soap; cheap caps and felt hats; scales; cabinet hardware; and saws.

SHIPPING FACILITIES FOR TRADE WITH UNITED STATES.

Since the port of Tatungkow no longer possesses any commercial importance, and since Fenghwangcheng is an inland town, Antung is the only treaty port in this district that can be said to possess any shipping facilities. The natural water route for trade with the United States is by way of Japan, with the port of Kobe as a point of transshipment.

The Osaka Shosen Kaisha (Osaka Steamship Co.) has two steamers on the Osaka-Kobe and Antung run, which furnish sailings approximately every 10 days during the season of navigation.

The war has directly and adversely affected shipping facilities with the United States by decreasing the available tonnage on the Pacific and greatly advancing freight charges.

The silting up of the fairway of the Yalu River at a point several miles below Antung, which is thought by some engineers to have been occasioned by the piers of the railway bridge, has resulted in preventing ocean-going steamers from coming up, as was done in former years, as far as the Antung water front. The present anchorage for such vessels is at Santaolangtow, a subanchorage 6½ miles below the city. As the use of this subanchorage necessitates the additional expense of lightering all cargo, efforts have been made in recent years to dredge out the channel, but with no success. Conservancy works that would cause the river to scour out its own channel have been projected, but owing to lack of funds nothing had been done up to June, 1918. However, as such a plan would appear to the lay observer as likely to be successful, it is to be hoped that the delay owing to lack of funds will prove only a temporary one.

In spite of the difficulties caused by the necessity of lightering, and the great reduction in bottoms caused by diversion of shipping as a result of the war, the number of steamers entering the port during the year 1918 was 275, with a total tonnage of 106,696. Of these 123 were Japanese, 134 Chinese, 17 British, and 1 Dutch. The majority of these were small coasting vessels of 150 to 300 tons, which ran to Chefoo, Dairen, Tsingtau, and Korean ports. However, there were also several larger vessels of 1,500 to 2,000 tons running to Shanghai, Tsingtau, and South China and Japan ports.

FACILITIES FOR TRAVEL.

There is no modern hotel in Antung. However, the Yapuken Hotel, a Japanese inn, is often used by American and European travelers. The rates, including meals and service, are 3 yen and up (equivalent to $1.50 United States currency). The hotel maintained by the Chosen Railway Co. at Hsin Wiju (Japanese pronunciation "Shingishu"), Chosen, just across the river from Antung, is modern and well equipped, and can be reached by a jinrikisha ride of only 25 minutes from the business center of Antung. The rates are from 6 yen a day up ($3 United States currency). In the interior towns of this district there are no modern accommodations, and travelers must carry their own food and bedding with them.

The best seasons for visiting this district are the months of June, September, October, and November. In the early spring months there is likely to be too much wind for comfort, the rainy season occurs during July and August, and the winter months are cold and excessively windy.

By means of the Chosen and South Manchuria Railways, over which a thoroughly modern express-train service is maintained, Antung can be reached with ease and comfort at all seasons of the year from Japan or from Mukden. In terms of time, Antung is 10 hours and 20 minutes from Seoul, and 6 hours and a half from Mukden.

Passage may also be secured on steamers running from Shanghai, Tsingtau, Dairen, and Tientsin, but as the steamers that can come up the Yalu River are quite small it is usually more comfortable to travel by train.

TRADE ORGANIZATIONS IN DISTRICT.

There are only two trade organizations in this district, the Chinese and the Japanese Chambers of Commerce at Antung. The Chinese Chamber has a membership of 52 firms and plays a very important rôle in the commercial life of the Chinese city. The Japanese Chamber has 20 members and is a very wide-awake body, which loses no opportunities to advance Japanese trade interests.

In the Japanese Settlement there is a Japanese commercial museum where exhibits of Japanese manufactured goods can be seen by possible Chinese purchasers and where exhibits illustrative of the agricultural and mineral products of this district can be conveniently shown to prospective Japanese settlers and investors. As the admission is free these exhibits are seen by many people.

AMERICAN INTERESTS.

Although Antung was first opened to foreign trade by the American treaty of 1903, American interests in this district are, unfortunately, not large. At present, besides the local manager of the Standard Oil Co. of New York, the only representatives of American trade are several Japanese firms that incidentally hold agencies for a few lines of American goods. American flour and some American cotton piece goods are imported by way of Shanghai and are handled by local Chinese firms. However, the war has temporarily stopped the importation of flour, and the cotton piece goods have almost been replaced by Japanese cheap cottons.

There are no American missionaries in this district.

GENERAL TRADE SUGGESTIONS.

There is but little probability, under existing conditions, of American manufacturers capturing or holding any appreciable share of the trade in this district except in lines in which Japanese manufacturers do not compete. The reasons are found in the great advantages of geographical proximity, special transportation rates, lower import duty, and direct local representation which the Japanese manufacturers enjoy and which their American rivals do not. The first and second of these obstacles to the growth of American trade can not be overcome. The third and the fourth, however, while great, would not seem to form insuperable obstacles.

Commencing in the summer of 1913 all rail-borne goods imported into Manchuria from or through Chosen have enjoyed a one-third reduction in customs duties, and since virtually all Japanese imports into this district come over the Chosen railways, while practically all American imports come by sea, the Japanese manufacturer has, since 1913, had this advantage over the American producer. In Antung, which is the distributing center of the district, there are more than 7,000 Japanese residents, numerous Japanese import firms, representatives of Japanese manufacturers, an active Japanese Chamber of Commerce, a Japanese commercial museum, several Japanese banks, Japanese forwarding companies, and the only railway that feeds the district is in Japanese hands. In a word, all of the machinery and facilities for trade are possessed by the Japanese. On the other hand, there is only one American representing American trade; and he did not come until late in 1915, and represents exclusively a large American oil company.

It will readily be seen that an American manufacturer who tries to reach a Chinese customer unacquainted with the English language by means of a catalogue in English, quoting prices f. o. b. New York, is not likely to succeed in competing with his Japanese rival who has a Chinese-speaking representative with samples on the ground and who quotes prices ex-warehouse Antung. Fortunately this is not the only way in which American goods can come to this market, for a limited amount of American flour and cotton piece goods are sold by American import firms in Shanghai to the Shanghai buyers of Antung Chinese firms. Even when sold in this manner American goods are under a tremendous disadvantage.

In considering how this difficulty of lack of representation may be overcome it is obvious that only a firm having extensive sales in

Manchuria could afford to maintain a local representative, and that firms whose sales would be small could only have proper representation by giving agencies or, preferably, by combining to maintain their own resident representative. Agencies placed in the hands of European or Japanese firms are too frequently either neglected, because of the natural preference given to goods originating in their own countries, or are accepted merely to prevent rival goods from getting on the market. The plan of combination for Manchurian representation is one that has been developed elsewhere in this volume (see p. 245). With proper representation in Mukden and with a branch in Antung, it would then be feasible to land American goods at Kobe and to import them through Chosen, thus getting the advantage of the one-third reduction in duty.

Until some plan for direct American representation is worked out the best method of getting American goods on this market is through the large American import firms in Shanghai and Tientsin.

CHANGSHA CONSULAR DISTRICT.

By Consul Nelson T. Johnson.

LOCATION AND AREA.

The consular district of Changsha comprises the single Province of Hunan. This Province lies between the twenty-fifth and thirtieth parallels of latitude and the one hundred and ninth and one hundred and fourteenth meridians of longitude. It lies south of Tung Ting Lake and the Yangtze River. A similar area would cover a district as large as the State of Kansas and would be situated in the same latitude as the Gulf of Mexico or Florida. Its capital, the city of Changsha, where the American consulate is located, is approximately in the same degree of latitude as the city of Tampa, Fla. The Province is bounded on the north by the Yangtze River and the Province of Hupeh, on the west by Szechwan and Kweichow, on the south by Kwangsi and Kwangtung, and on the east by Kiangsi.

The area of Hunan is given by Prof. Richthofen from Chinese sources as nearly 84,000 statute square miles. Lobscheid gives 70,000 and Richard 83,398.

POPULATION.

The population of the Province is given by Richard as 22,169,000, or 265 persons per square mile. This total would be approximately equivalent to the combined population of the States of New York, Massachusetts, Pennsylvania, Connecticut, and New Jersey. The population is mostly rural, the people being generally collected in small villages and towns throughout the Province. Few of Hunan's cities number more than 50,000 inhabitants. The city of Changsha, which is the largest of the cities of Hunan, had, according to the police statistics published at the end of 1915, a population of 229,537. It may be estimated that of the total population of the Province 80 per cent represents the population living in the country districts and 20 per cent the urban population.

PHYSICAL FEATURES.

The Province is hilly and mountainous in the west, center, and east. Its watersheds, from which its four largest rivers flow into the Tung Ting Lake, form natural boundaries with bordering Provinces. There are no plains of any size. The hills and mountains in the west and south are well wooded, the inhabitants of those regions deriving considerable income from the exportation of timber. The waterways or rivers that drain these mountains rise near the borders of the Province and flow generally in a northeasterly direction to empty into the Tung Ting Lake. The Siang River is the largest of these rivers. Rising in Kwangsi, it takes a northerly course through the Province and forms the chief highway for trade between the Yangtze Valley and the southern part of the Province. At one time it was the trade highway that connected the Yangtze Valley with Canton. Next in importance comes the Yuan River, which rises in Kweichow Province on the west and, passing by the important cities of Shenchow and Changteh, likewise flows into the Tung Ting Lake. The remaining two rivers are the Tzu River, which flows through the central part of the Province, rising in the south, and the Li River, which drains the northern part of the Province, entering also the Tung Ting Lake. The Province generally slopes in a northeasterly direction toward the Tung Ting Lake. At one time this lake must have been a considerable body of water. It has silted up, however, until it is now dry for the most part during the winter months. The rivers that flow into it then find winding courses through its bed to enter finally the Yangtze River below the city of Yochow. During the summer months, however, when the Yangtze River is at flood and when the rainy season prevails in Hunan, the waters of Hunan's river systems meeting the rising flood of the Yangtze fill up the lake until it becomes a very large body of water. Richard gives the dimensions of this lake in the summer time as 75 miles long by 60 broad.

CLIMATE.

Hunan has a subtropical, moist climate. The summers are warm and damp, while the winters are exceedingly chilly because of the excessive dampness of the air, though the temperature rarely falls below freezing point. The temperature varies from 23° to 95° F. There is a distinct rainy season, which coincides generally with the summer months of the year. The prevailing winds are northerly. The average annual rainfall is 63.36 inches. The heaviest rainfall occurs in the month of June, while the lightest rainfall is in January. The customs records at Changsha show the mean average monthly rainfall over a period of six years as follows: January, 1.77 inches; February, 3.55 inches; March, 6.52 inches; April, 6.84 inches; May, 7.60 inches; June, 12.05 inches; July, 5.13 inches; August, 6.01 inches; September, 2.80 inches; October, 3.93 inches; November, 5.14 inches; December, 2.05 inches. While the Province is located in the same latitude as the State of Florida, snow falls frequently as far south as Changsha in the winter when the north winds blow.

POLITICAL SUBDIVISIONS.

The Province is administered by a high official appointed by the central Government and known as the civil governor. He has general jurisdiction over the Province, being responsible to the central Government for supervision over the judiciary and finances of the Province as well as supervision over the work of the various taoyin and district magistrates. The finances of the Province are under the immediate direction of a department of finance, which is a branch of the Ministry of Finance of the central Government. Supreme judicial authority is in the hands of the chief justice of the higher court of justice for the Province, who comes under the supervision of the civil governor and acts under the direction of the Ministry of Justice at Peking.

The taoyin or intendants of circuits are officials appointed to administer regions composed of several districts. They come immediately under the direction and control of the civil governor. Within his jurisdiction the powers of the taoyin are similar to those of the governor. The smallest, yet the most interesting, unit of administration in the Province is that of the district magistrate. He presides over a district, or "hsien"; his duties are administrative and judicial. As administrative officer he has charge of the collection of the taxes and issues proclamations having the force of law within the area of his jurisdiction. He attends to the registration of property titles and generally to all the various minute details appertaining to the government of his district. For instance, he is the coroner of the district and must travel to inspect a deceased person who has died under suspicious circumstances. The various towns under the magistrate's jurisdiction possess head men or town elders, who are recognized by him, given a seal, and held responsible for the peace and good order of their respective towns or villages. Judicially the magistrate occupies a position similar to that of a judge of a court of first instance. It is in his court that cases between foreigners and Chinese are brought for trial. The treaties provide that the consular representative of the nation concerned shall be allowed to attend the court and examine witnesses on behalf of his national. The final jurisdiction of the magistrate is limited, but all actions commence in his court. In cases involving foreign interests his jurisdiction is practically unlimited. In Chinese cases his jurisdiction, as stated above, is limited, and where the crime committed involves a penalty greater than he can inflict he holds a preliminary examination. At Changsha there is a commissioner for foreign affairs appointed by the Ministry for Foreign Affairs at Peking, who has general supervision over the various questions that arise between foreigners and the Chinese authorities. As a rule the consulates carry on correspondence with this official whenever matters arise requiring the action of the authorities. The customs is in the hands of foreign commissioners. There are two customs districts in the Province of Hunan corresponding to the two treaty ports, namely, Changsha and Yochow. Each customs district has its commissioner of customs and its customhouse.

EDUCATION.

In addition to the usual drawbacks of lack of teachers and funds, there has been encountered in Hunan a greater difficulty that it was necessary to overcome in order to modernize the system of education in vogue and the educational institutions. This was the friction between the old and new ideas of education, which was particularly strong in Hunan, the most conservative of all the Provinces. Nevertheless, whatever the conditions may have been in the past, there has been in the last decade great progress in the introduction of modern ideas. Temples and public buildings have been turned into schoolhouses to meet the growing demand for modern learning, and Chinese Government schools, private schools, and foreign mission schools are all working harmoniously toward the same goal.

The aim and end of the old system of education was official preferment. The boy prepared himself for examinations held periodically by agents of the Government and had the assurance that, with a little influence and means, he might be appointed to the civil service and possibly reach the highest posts that the Government had to offer. Little knowledge of science or literature was demanded of him in the other walks of life. Modern education, however, has brought about a change and declares that the aim of education is the advancement of social welfare and practical efficiency. A great deal of stress is laid in the new schools on the development of a military spirit. In all schools a certain part of the day is devoted to physical exercises. In some of the higher schools drill, boxing, and fencing are encouraged. Even the new school songs are such as would be calculated to stimulate the martial spirit in the students. All students are required to wear uniforms with the insignia of their school displayed on hat and collar band.

The following statistics, based on information furnished by the office of the civil governor of Hunan, summarize generally the condition of education, public and private, in the Province of Hunan:

DIVISON BETWEEN BOYS' AND GIRLS' SCHOOLS.

Items.	1913-14		1914-15	
	Boys' schools.	Girls' schools.	Boys' schools.	Girls' schools.
Total number of schools	5,441	131	6,973	157
Total number of students	208,591	14,196	278,419	9,699
Total number of graduates	13,650	1,160	13,838	1,141
Number leaving school before end of term	15,047	2,479	18,756	935
Number of deaths among students	895	106	941	63
Number of teachers	14,566	864	15,465	638
Number of employees	7,383	238	10,031	334
Financial statement:				
Receipts	$1,246,659	$104,818	$1,388,457	$114,115
Expenditures	$1,267,533	$100,075	$1,423,590	$120,581
Value of school property	$41,33,003	$191,405	$5,168,507	$219,318

DIVISION BETWEEN PUBLIC AND PRIVATE SCHOOLS.

Items.	1913-14.		1914-15.	
	Public schools.	Private schools.	Public schools.	Private schools.
Total number of schools	3,372	2,200	3,949	3.181
Total number of students	142,682	80,105	155,104	133,014
Total number of graduates	10,465	4,345	9,810	5,169
Number leaving school before end of term	10,697	6,829	12,241	7,450
Number of deaths among students	685	316	684	320
Number of teachers	8,760	6,670	8,022	8,081
Financial statements:				
Receipts	$959,569	$391,908	$1,073,029	$429,543
Expenditures	$1,021,351	$355,257	$1,089,807	$454,364
Value of school property	$3,042,999	$1,281.409	$3,840,388	$1,547,437

According to information furnished by the office of the provincial civil governor for the school year 1914-15, the average number of schools for each of the 75 counties of the Province of Hunan amounted to 95, with an average of 3,800 students in each county. In the year before it was found by the official statisticians that the two counties of Changsha and Pingkiang stood at the head of the list so far as the number of schools was concerned, each of these counties having approximately 500 schools of all kinds. The counties reporting the smallest number of schools in that year were Suining, Kuchang, and Tayung, each of which had not more than 3 schools. All three of these counties are in districts remote from the provincial capital.

There appear to have been in 1914-15 an average of 200 graduate students per county from all schools. The receipts and expenditures in school administration amounted to something more than $20,000 per county, while the average value of school property per county amounted to $70,000. It is interesting to note that the authorities place the area of the Province at 800,000 square li (approximately 88,888 square miles) and they give the population of the Province as 28,000,000, divided into 54,000 families. These statistics of population are reported to be based upon statistics collected during 1913. Using this data as a basis, the authorities find that for each 140 square li (approximately 16 square miles) there is one school and for each 25 families or 126 persons there is one student.

The authorities point out, however—and very justly, too—that these averages would be doubled or trebled if the large number of students who are being educated at home by private tutors should be taken into consideration, for it is still true that there are a great many families that prefer to have their children educated in the home under the care of private tutors rather than to send them to the public schools. The authorities state further that there were fewer than 40 students to each school, on an average, with at least one teacher to each 20 students. The cost of education per student averaged about $10. It is estimated that one out of each 20 students graduated and that one out of each 15 left school before completing the work, while there was one death in each 280 students.

Foreign missionary institutions maintain schools at the various stations in the Province where they conduct their mission work. The following table, based for the most part on statistics given in the Educational Directory of China for 1915, will show the extent and number of these schools:

Town.	Name of school.	Organization in control.	Students.	
			Boys.	Girls and women.
Changsha	St. James School	American Episcopal Church Mission	34	
Do	Union Girls' High School	American Presbyterian Church Mission United Evangelical Church Mission		30
Do	United Evangelical Girls' School.	do		72
Do	Yale College in China	Yale Foreign Mission Society	143	
Do	Woman's School	American Presbyterian Church Mission		25
Do	do	United Evangelical Church Mission		11
Changteh	John Miller School	American Presbyterian Church Mission	42	
Do	Girls' School	do		20
Chenchow	Girls' Academy	do		45
Do	New China Academy	do	115	
Hengchow	Presbyterian Academy	do	60	
Do	Girls' School	do		30
Liling	Boys' School	United Evangelical Church Mission	50	
Pingkiang	do	Wesleyan Mission	25	
Shenchow	Eastview School	Reformed Church in United States	40	
Siangtan	John D. Wells High School	American Presbyterian Church Mission	66	
Do	Sunnyside Girls' School	do		40
Do	St. Paul's School	Church Missionary Society	130	
Taoyuan	Yuan Nan Boys' Academy	American Presbyterian Church Mission	30	
Tsingshih	Tsinglan School	Finnish Missionary Society	53	
Yiyang	Norwegian Missionary Society Academy.	Norwegian Missionary Society	65	
Yochow	Lakeside Schools	Reformed Church in United States	120	
Do	Girls' School	do		40
Yungtung	Yung Lan School	Finnish Missionary Society	28	

This does not include various day schools conducted by the missionary organizations, which number several hundreds of students. The Yale Mission conducts a preparatory school and college and cooperates in the maintenance of a medical school at Changsha. This school will be a college with a curriculum similar to that maintained in colleges in the United States. There are about 43 Roman Catholic mission educational institutions in the Province. Among these there are no high schools, and the curriculum does not follow that prescribed by the Chinese Board of Education. The total attendance in these schools is about 1,500 boys and 300 girls.

School supplies and apparatus used by the schools in this district have come generally from or through Japan. The department of sciences of the Higher Normal School is very well equipped with up-to-date modern supplies, and every effort is exerted by the school to make the methods of instruction correspond to the character of the apparatus. The better schools of the Province will continue to use a large amount of foreign apparatus for teaching the sciences until materials of equal quality can be purchased at home; but the tendency is to improve the manufacture of all school supplies locally to meet the increasing demand. As soon as a foreign book becomes popular because it meets the need better than any other, it is reprinted in the East in a cheaper edition, and other things brought from abroad are copied so far as possible.

AGRICULTURE.

It is estimated that 60 per cent of the population of Hunan live by tilling the soil. The principal crops are mentioned in the following paragraphs.

CEREALS AND BEANS.

Rice; both glutinous (*Oryza glutinosa*) and nonglutinous, planted early in May and reaped in August or September, yields 3 or 4 piculs (133 1/3 pounds to a picul) of unhulled rice per mow (1 acre equals 6.6 mow). Good land yields as much as 6 piculs per mow.

Wheat, not grown in sufficient quantities to meet local requirements, is planted in the fall (generally in fields vacated by rice) and is harvested in the spring.

Maize is grown on hillsides with little care or cultivation, resulting in poor crops of stunted ears. It is planted in April and harvested in September.

Beans of the yellow and green varieties, are planted in April and harvested in September. Large crops of these beans are harvested.

Sesame is planted in April and harvested in September. It is grown in large quantities.

Buckwheat is planted in September and harvested in November.

Barley forms a scant winter crop.

Millet, including the variety known in China as kaoliang, is grown in the northern part of the Province as a winter crop.

COTTON.

Cotton is grown in the district north and west of Changteh. The seasons for planting and picking cotton corresponds to those for rice. The cotton grown in Hunan is poor in quality, being of short staple.

RAMIE GRASS AND OTHER FIBERS.

In the Yuhsien, Liling, Liuyang, Changteh, Hansheo, and Yiyang districts, hemp is produced in considerable quantities. *Boehmeria nivea* (*Hooke et Arn.*), rhea fiber, also known as ramie grass or China grass, and colloquially among the Chinese as "ch'u ma" is extensively cultivated throughout these districts. That grown at Liling has a reputation for being of the best quality. The plant is a perennial herb of the nettle family. Only the outer skin of the ramie plant is used. Rev. I. R. Dunlap, an American missionary residing at Liling, described to the writer the process of harvesting this fiber. The culm is broken with the fingers about 2 to 3 feet from the ground and the skin is stripped downward and broken off, leaving the bare stalk, which is later cut away to permit a second growth (there are three crops in one year) to mature. The tops are then taken in from the field and the skin is stripped from them. According to Rev. H. Jowett, of Pingkiang, who is quoted by the commissioner of customs in his decennial report for 1902-1911, the stripped skin is placed in water, to which nothing is added, and is allowed to soak for 24 hours to soften the outer surface of the fiber. It is then taken out of the water and drawn quickly between the edges of two knives, which are fixed so that they are about one-thirty-second or one-sixteenth of an inch apart. This scrapes all the matter from the fiber-bearing skin, which is then sun-dried, bundled, and sold for export. Mr. Jowett states that the fiber is separated by hand to a fineness equalling a 40 count of cotton yarn. Thread is made by twisting together two or more strands. The process is slow; a skilled woman can produce only about 3 ounces per day.

Another fiber that is cultivated in large quantities in the Liuyang district is the ko, *Pueraria Thunbergiana*. This is a creeping inedible bean planted along the dividing ridges between paddy fields. It produces a fiber from which, by a process similar to that described in the case of ramie grass, a cloth similar to ramie grass cloth is produced. The cloth made from this fiber is much softer than ramie-grass cloth and is not so durable nor so white.

Coir fiber is produced and is extensively used locally in the manufacture of rope. Its water-resisting qualities commend it to the boatmen. Coir rope is made by hand, the machinery used being of the simplest type. The first strands of the rope are made by twisting from a pile on the table in front of the operator by means of a kind of distaff turned with the fingers of the right hand. The completed strands are then twisted into a rope by means of a series of revolving hoops turned by hand.

VEGETABLE OILS.

Several varieties of oil-producing beans are cultivated extensively. Among these the best known and most widely cultivated are wood-oil seeds ("tung tzu"), *Aleurites Fordii M. Arg.*, from which the wood oil of commerce, an excellent substitute for linseed oil, is produced. Tea seeds ("ch'a tzu"), from which the tea oil of commerce is produced, are the seeds of the shrub of the Camellia family, *Camellia sasanqua*. Large quantities of tea oil are produced in the Province and consumed there. The oil is used for lighting and for cooking purposes. Foreign kerosene is gradually driving it off the market as an illuminant.

Rapeseed is another important oil-seed crop, the oil being used for purposes similar to those of the tea oil.

LILY ROOTS.

Another very important crop is the lily-root crop. From various starch-bearing roots, such as the rhizomes of the lotus and the bulbs of the common lily, large quantities of arrowroot flour are produced. Each district, generally speaking, has its favorite kind. One very popular variety is manufactured from the root of the lotus, *Nelumbo nucifera Willd.* This is produced throughout China. Another popular variety is produced from the roots of the "ko" plant, *Pueraria Thunbergiana,* which is mentioned above in reference to its fiber-producing quality. The starch or arrowroot flour is made from its roots by mashing them and straining off the water contents, leaving the residuum to dry in the sun.

BAMBOO.

The bamboo is cultivated extensively throughout the Province of Hunan and is used for many purposes, both about the house and in the arts and industries. Rev. H. Jowett of Pingkiang says concerning the process used in making paper pulp from bamboo: "The bamboo is cut into lengths of about 4 to 6 feet, split, and crushed. It is then steeped for several hours in water, to which have been added quantities of quicklime. This rots the bamboo but in such a way as not to decompose the material completely. After being dried, it is pounded to a powder." This operation, it is understood, is performed in a machine that is operated on the plan of a pestle and mortar. According to Mr. Jowett, the pestle is operated by water power. The powdered material is pulped and exported as a raw product.

TEA.

The tea crop of Hunan is a most important one. Both green and red teas are produced. The difference is one of method rather than of variety, the green tea being produced by roasting the leaves over a charcoal fire, while the red tea or "black tea" is the result of fermentation in the sunlight. In the northwestern part of the Province there are three pickings of the tea leaves, these taking place in the months of April, May, and June, respectively.

SWEET POTATOES—PEANUTS—"WATER CHESTNUTS."

Sweet potatoes, peanuts, and "water chestnuts," or "beechi" (*Scirpus tuberosus Roxb.*), are all cultivated in large quantities. The water chestnut or beechi is a favorite delicacy of the Chinese and is generally eaten raw. Large crops of chestnuts and English walnuts are harvested in October of each year. Both nuts are favorites among the Chinese.

FRUITS.

Of fruits the Province produces the pomelo, *Citrus grandus L.*, oranges of various kinds, plums, pears, peaches, apricots, pomegranates, and grapes. The most prominent of these, so far as quantity is concerned, are pomelos, oranges, plums, loquats, pears, and peaches, in the order named.

TOBACCO.

Tobacco is an important crop in southern Hunan, where it is grown in large quantities. It is planted in the early spring and harvested in the early fall. The chief method of curing the leaf is by exposing it to the sun. The leaves are separated from the stalk and fastened flat between two bamboo screens with large interstices. These frames are tilted up in the sunlight so that they can dry evenly. There are two crops, one planted about a month earlier than the other and harvested a month earlier. The earlier crop is considered the better. The tobacco after curing is bound into bales. A large part of the crop is manufactured into water-pipe tobacco. The process is similar to that used in manufacturing chewing and plug cut smoking tobacco in the United States. The leaves are stemmed and laid lengthwise one upon the other in a long, narrow press. Tea oil is one of the substances added. The leaves filling the press are squeezed together, forming a compact block. This block is taken out and turned up on its edge, and operatives using planes especially made for the purpose shave the tobacco, the finely shredded leaf being used in the water pipe, which is a favorite with all classes of Chinese.

PLANTING AND CULTIVATION.

From the foregoing account it will be seen that one or more of the important crops of the Province is always in the ground or is ready for harvesting throughout the year. The winters are not severe enough to put a complete stop to the growth of vegetation. The principal planting season, however, is in the spring, when the rice is put into the ground, and harvesting generally coincides with the beginning of August and extends through the month of September. Truck gardeners in the neighborhood of Changsha utilize their fields for the growing of various vegetables throughout the whole year, one crop following close upon another. In this way the small plot of ground is made to yield the maximum amount of produce.

The intensive system of cultivation is practiced throughout Hunan. Narrow valleys afford very small plots where each farmer must toil diligently to get the most out of his land. The fertile soil yielded by the rocks of the coal measures makes these narrow bottoms especially adapted to the cultivation of rice. Slopes are used for the cultivation of tea and tea oil, sometimes being terraced to a considerable height, when the water supply is convenient, and used for the cultivation of rice. Irrigation is universal, the rice crop especially demanding a steady and copious supply of water. Irrigation methods differ with the location of the ground which it is intended to irrigate. The simplest method used is to guide, by ditches properly placed, the water from some overflowing spring or stream. Where the fields lie above a steady supply of water, a reservoir will be made by placing a dam across one end of the valley for the purpose of catching the rain water that comes down the sides of the hill. Where the fields are level, pools are dug in their midst to collect surface water, and here the water is transferred from the pool to the field by well sweeps, or by two men who hold a pail between them fixed to ropes and repeatedly dip the water out of the reservoir and throw it into the irrigating ditches. Where the field to be irrigated lies beside a river and at some considerable distance above the level of the stream, an ingenious method has been contrived whereby a water wheel—to the circumference of which have been fixed a number of short bamboo tubes closed at one end and tilted away from the river—lifts the water in these tubes, which empty at the top of the revolution of the wheel into troughs that lead the water into the fields. These wheels are turned by the current of the river that supplies the water for the fields, and the farm is thus supplied with an ever-ready quantity of water. Another method much used consists of a wooden trough made water-tight and open at the top. Through this trough passes an endless chain to which are attached paddles the size of the trough, carrying the water from the stream upward to the top and pouring it into the irrigation ditches. This chain of paddles is pulled through the trough by means of wheels, the upper one having an attachment so that it can be turned by a coolie, who uses his feet for the purpose.

All the work done in the cultivation of the crops is carried out with the simplest of homemade instruments—instruments, however, that are well adapted to the uses to which they are put. The broad hoe, a heavy, unwieldy implement, is used almost universally, since it can serve as an ordinary hoe or as a spade. Rakes, made of bamboo or iron crudely cast, are used. The Chinese plow, made entirely of wood except for the iron three-cornered share, is used in the fields for turning up the soil. This plow rarely turns the soil up to a greater depth than 5 inches. The result is that the soil is poorly broken, and the most successful results of plowing are not obtained. However, this fault is probably not felt very keenly in the case of rice farming, as water is kept standing in the fields throughout the growth of the plant. A kind of harrow is also used. It sometimes takes the form of a gigantic iron comb with teeth far apart and is used to complete the breaking up of the soil in the water-soaked rice fields after plowing.

Bullocks and cows are used for dry plowing sometimes, but the water buffalo is the favorite farm animal. He is a powerful beast and well suited for his work, especially the pulling of the plow through the 1 or 2 feet of mud and water of the paddy field. Nearly every farmer owns at least one or two buffalos; if he is too poor to own one himself he goes into partnership with one or two other farmers. The horse is practically unknown on the farms. Small ponies are used in the more mountainous districts of the Province as pack animals. Crops are moved from the field to the farm granaries and from the farm to the market on the backs of coolies or by boat. Sometimes the wheelbarrow is used. In the districts along the river banks where reeds are cultivated one sometimes sees crude four-wheeled wagons drawn by a couple of bullocks, but their use is limited to the level reed beds. There are no roads in the Province upon which wagons can be used.

USE OF FERTILIZERS.

Fertilizers are used universally by the Chinese farmers of this district. Because of the lack of any great number of cattle, night soil is used generally, the greatest care being taken everywhere to collect and preserve it for the use of the farmer. Other fertilizers used are bean cakes (and other residuum left during the manufacture of vegetable oils), bone dust, bits of meat refuse, hair, wood ashes, and in fact anything that has the slightest value as a fertilizer—all is saved, cast into the general pit or mound, and used. The ponds or reservoirs from which water is drawn for irrigation purposes are generally stocked with fish, and the slime from the bottoms of these ponds, rich with the waste products of the fish, is smeared over the fields. Paddy fields are often allowed to lie fallow during the winter and a kind of purplish red clover (*Astragulus sinicus*) is grown. Rice fields are fertilized from small, deep pits located either in the center of the field or on one side. Into this pit the fertilizer is poured and allowed to stay, and when the paddy field is flooded the fertilizer seeps through into the soil. In the case of truck gardeners, wood ashes or bone dust is poured around the young and growing plants. The Chinese farmer is an adept at forcing growth. He allows no weeds to take away the life of the soil from the growing crops.

GENERAL CONDITIONS IN FARMING COMMUNITIES.

Generally speaking, the actual farmer of Hunan leads a hand-to-mouth existence. Absentee landlords are the rule. Clan and individual wealth is reckoned in numbers of acres owned. The land is often situated at a considerable distance from the village where the clan or individual owner resides. Extra funds are generally invested in land. The result is that perhaps 75 per cent of the actual tillers of the soil in Hunan are tenant farmers. They pay their rent in kind to the landlord, generally once a year. The rent is paid in unhulled rice, 40 to 50 per cent of the harvested crop going to the landlord as rent, while the remainder is the property of the farmer. The farmer stores away enough of his crop for seed purposes and to feed his family against the next harvest. The surplus grain is generally bartered at the nearest village for household necessities or luxuries or is sold outright to the rice merchants. A system of loans on crops exists. In the country villages it centers about the village pawnshops, which advance money on the crops and, it is understood, store the grain during the period of the pledge. When the new rice comes into the market, a great deal of speculation takes place and the authorities find it necessary to place embargoes on the exportation of the rice in order to prevent scarcity. These embargoes are of two kinds—one kind applies to the Province as a whole and forbids the exportation of rice except over and above a certain fixed quantity that is considered necessary for the support of the Province; the other forbids the movement of rice from one district to another, in order to prevent local scarcity and the cornering of supplies by individuals for the purpose of raising prices.

Wheat and rice are brought to the market by the farmer and sold to the buyers. The grain is stored in granaries near the fields until sold, when it passes into the hands of the buyer or of the bank that has financed the buyer's operations. In the latter case it very often passes entirely into the possession of the bank, to be delivered to the buyer at some other place upon payment of the price. Transportation is by means of coolies, wheelbarrows, or boats.

Hunan exports tea, beans, bristles, grass cloth, ramie fiber, human hair, hides, wood oil, and sesame seed. The broad bean is produced for exportation to European countries for cattle food. Wood oil is exported in increasing quantities, especially to the United States, where it has found favor with manufacturers of quick-drying varnishes.

LIVE STOCK—EGGS—FISH.

In the mountainous districts to the east, south, and west, small ponies are used as pack animals. Nearly every farmer has his buffalo or cow. The cow and buffalo are used for the heavy farm work. The cow is only beginning to be used for its milk. Goats are generally kept and they are killed for their meat; they are also kept for their milk. Goatskins, goat hides, and buffalo hides are exported from the Province in considerable quantities.

Large quantities of eggs are produced in the Province but are, for the most part, consumed locally. An interesting method of preserving these eggs is used. They are coated with a preparation of clay (about 6 parts), rice chaff (about 30 parts), and salt (about 10 parts). The eggs so preserved are said to keep for one or two years. They are packed in earthenware jars while the clay is still damp, and sealed up. Such eggs are called "salted eggs" and must be cooked before they can be eaten. They are said to have a slightly salty flavor. Another method of preserving eggs is by using lime. Eggs preserved by this method become hard after the fashion of hard-boiled eggs and turn a dark green color. They keep indefinitely. They are sliced and served as a delicacy.

A large business is done in the raising and marketing of ducks. Both ducks and chickens are killed, cleaned, and cooked, or are preserved with salt. Considerable quantities of chickens have been shipped from the Province to Hankow, where they are frozen for the European market.

Hunan pork also finds its way to the Hankow market for shipment to Europe. Hunan pigs are raised under more cleanly conditions than those prevailing in other Provinces. The meat is white, firm, and of excellent flavor.

Siangtan has a thriving industry that occupies itself with the raising of fish. Fish spawn are collected from the river in spring and are fed and grown in shallow ponds located within the city walls. Early in the summer they are taken from the ponds and classified and are peddled throughout the country, being purchased by the farmers for stocking the irrigation reservoirs on their farms.

WEAVING OF HATS AND MATS—PRODUCTION OF CLOTH.

Southern Hunan produces a grass known among the Chinese as "dragon's whisker grass" (*Juncus effusus Deth.*) This grass, when dried, is collected into bundles and is used for weaving hats and mats. The texture of the hats and mats woven from this grass is similar to that of the Panama hat. The material, however, is lighter, not so durable, and of a dark yellow color.

Hand looms are used in large numbers throughout the Province, both by individual families for the production of cloth for family use and in groups of from 5 to 20, in shops especially made for the purpose or in spare room in silk or food shops, where they are used for the production of striped cotton known to the trade as nankeens. Part of the nankeens manufactured locally are exported from the Province.

MINERALS AND MINING.

Hunan's mineral wealth is very large. The number of minerals in the Province has not yet been completely determined. The Hunanese have been miners, according to their own historians, since the time of the Chou Dynasty (1122 to 255 B. C.), during which time this part of the country paid tribute of cinnabar and silver to the emperor.

ANTIMONY.

Antimony is by far the most important mineral product of the Province. China is the chief source of the antimony supply of the world, and Hunan is the center of antimony production in China. This mineral occurs at numerous places in the Province, but the principal mines are located in central Hunan. Much the most important field is located at Hsikengshan, about 22 miles east of Sinhwa on the Tzu River. The ore is stibnite, or antimony sulphide partially oxidized in the outcrop zone, and it occurs in the form of seams, pockets, and masses generously distributed throughout a layer of limestone varying in thickness up to 45 feet. The P'an Hsi mines are located about 25 miles south of Chanhsi, a small town on the Tzu River some 36 miles above Yiyang. The surrounding country is mountainous and composed of sedimentary strata tilted and bent by granitic intrusions but not much marked. Four mines are being worked here. The ore bodies are of the fissure vein type, the ore occurring in sheets. These have been worked down to depths varying from 150 to 500 feet. The ore is stibnite. The average width of the veins probably does not exceed 15 inches, though very occasionally they swell out to 5 feet. Other mines of less importance are the Wu Hsi in Shenchowfu, the Hua Pan Hsi at Nanhuahsien, and the Chiang Hsi Lung in Chupuhsien. These are geologically similar to the P'an Hsi mine, the ore being, however, of a higher grade.

LEAD AND ZINC.

Lead and zinc deposits occur in the southeastern part of the Province. The extraction of this ore would appear to be of ancient origin in the Province, as writers refer to vast slag heaps to be found at Kweiyangchow and to the southeast of Chenchow. The industry is now said to be practically extinct, with the exception of a few small mines producing lead and zinc ore and by-products from the associated minerals. The only lead and zinc mine of any importance is the one at Shuikoshan, controlled by the government of Hunan. It is situated about 32 miles south of Hengchow on the Siang River, the works lying at a distance of 4 miles from the river. The ore deposit consists of large, irregularly shaped bodies of mixed galena, zinc blend and iron and copper pyrites. Official records covering the past 20 years show that the mine has produced during this period more than 50,000 tons of lead concentrate and 126,000 tons of zinc concentrate, but there were extensive native workings prior to 1896.

TIN.

The tin fields of Hunan are situated in the most southerly portion of the Province, close to the Kwangtung border. The An Yuan mines in the Ichang district show the largest output at present. Mr. A. S. Wheeler, in an article published in the Far Eastern Review for

September, 1915, (to which account of the metalliferous mines of Hunan Province the writer is indebted for most of his information on the subject) states that the tin deposits that are being worked at this place are quite exceptional in their nature and are of a type which, so far as he is aware, is known at only three or four places in the world. He says, in his description of the deposits:

> The formation is limestone tilted and marmorized by the granite mass. A dyke of granite, probably of more recent date than the main mass, has penetrated the limestone, and along the course of this are found true chimneys or pipes of tin ore, associated with arsenical pyrites, actinolite, and a little copper pyrites and fluor spar. The pipes are roughly circular or oblong in cross section, varying from 20 feet downward in diameter. The maximum depth reached is about 400 feet, and the dip of the pipe ranges from horizontal to vertical.

The Hsiang Hua Ling tin mines are situated in Linwuhsien about 16 miles north of Linwu in the extreme south of the Province. Five companies are at work there, of which the Hunan Provincial Mining Bureau is the most important. Fissures are numerous, but apparently of short lateral extent, well defined. The associated minerals are arsenical iron and copper pyrites, with occasional bunches of fluor spar. At Kianghwa to the west of Linwu there is an extensive tin field extending southward into Kwangsi and Kwangtung Provinces, which has by no means been thoroughly investigated as yet. Native operations have been more or less confined to the alluvial deposits found on the tops and sides of the hills. The tin occurs in association with tourmaline, iron, and arsenic. The output from the entire field is stated to be greatly in excess of that in either of the two previously mentioned, and it would be greater except for the fact that the miners have suffered much interruption and discouragement as a result of local conditions. Arsenic is produced for the most part as a by-product from the treatment of tin ore carrying arsenical pyrites, as previously explained. Realgar (arsenic bisulphide) is mined near Tzuli north of Changteh. The deposit is said to be of considerable size and high grade.

QUICKSILVER.

Quicksilver is produced to the west of Fenghwangting in western Hunan adjoining the Kweichow border. The mines appear to have been worked intermittently for several centuries. Two mines are reported worked at present, one at Hantzuping, situated some 20 miles west of Fengchuang, and one at Tatungla, situated 25 miles to the southwest of that town. The ore is cinnabar (mercuric sulphide). At both mines the richer picked ore is crushed by hand and panned down for the cinnabar content; the poorer ore and tailings from panning are retorted for their quicksilver content.

GOLD.

Gold is washed at several places in the Province, but it is not believed that the amount secured is remunerative. The chief gold mines of the Province are located at Pingkiang in northeastern Hunan, close to the Kiangsi border. These mines are controlled by the Hunan Provincial Mining Bureau. Other gold mines exist at Suashapo, near the village of Tafuhsi on the Yuan River in the district of Taoyuan, at Liulincha, some 6 miles from the village of that name in the district of Shenchow, and at Huitunghsien in the southwestern quarter of the Province.

COAL.

The coal fields of Hunan occur principally between the Siang River and the eastern border of the Province. Richthofen estimates the area of the eastern fields to be approximately 16,200 geographical or 21,700 statute square miles, but points out that, of a great part of the area, probably more than one-half is covered by sediment many thousand feet in thickness more recent in age than the coal formation. He divides the coal fields of Hunan—the eastern part—into two nearly equal portions, calling one the Lei River field and the other the Siang River field. Of the Lei River field the most important region is situated on both sides of the Lei River between Yunghsinghsien and Hsingminghsien. All the coal of this district is anthracite. The Siang River coal field is made up of a reappearance of the coal measures north of the Lei River field where the Lei River joins the Siang. Here, however, the measures are quite different in character from the formations in the Leiyang coal field and probably precede them in age. They bear altogether bituminous coal. Coal is also found in the western part of the Province around Shenchow and Yuanchow. Fairly large deposits occur in the district about Paoking, whence the coal is exported by the Tzu River to Hankow.

OTHER MINERALS.

Other minerals produced include sulphur, manganese, graphite, and alum. Sulphur is produced principally at Pingkiang, Hsinhua, and Chenchow. It is obtained for the most part by the destructive distillation of iron pyrites. Rich deposits of manganese are reported. The principal working deposits appear to be near Leiyang and Changning, south of Hengchow. Graphite and alum come from the same region. Iron is produced in small quantities in the central and south-central parts of the Province, Paoking being the center of the iron-producing district. Copper occurs at Kiyang and Suining at the extreme south of the Province.

CHINESE MINING ENTERPRISES, PRIVATE AND GOVERNMENTAL.

The administration of mining affairs is entirely in the hands of the Chinese Government. Satisfactory regulations for admitting foreign capitalists to participation in Chinese mining enterprises have not yet been devised. The result is that little or no foreign capital has been invested in Hunan mines. There are no mines in Hunan at the present time under foreign control. The mines in operation are all worked by Chinese companies and are divided between private enterprises and those carried on by the provincial government. The most prominent of the private enterprises is that of the Hua Chang Mining and Smelting Works, which has opened and exploited a number of antimony and lead mines in different parts of the Province. This company has its own smelting and refining plant at Changsha and has a monopoly of the manufacture of antimony regulus in the Province.

The most prominent of the provincial government mining enterprises is that of the Shuikoshan lead and zinc mines. This property is run on foreign lines and is said to be the largest of its kind in China. It is well situated as regards transport and accessibility. There is a modern plant near the mine for the treatment of the ore and the production of lead and zinc concentrates. The capacity of this plant is about 50 tons per day. A new foreign plant with a capacity of 100 tons per day is in course of erection. A narrow-gauge railway connects the mines with the river at Sungpoau, where an experimental lead and zinc smelting plant using native methods has been established, in which both lead and zinc, as well as silver, are being produced.

ATTITUDE TOWARD FOREIGN INVESTMENTS.

The official attitude toward foreign investments is characterized by caution and a fear that the free introduction of foreign capital into Chinese mining enterprises will take the mining property away from Chinese official control. Every obstacle has therefore been placed in the way of allowing foreign investors a free hand. The result has been that Chinese mine owners find it extremely difficult to get foreign investors who are willing to share in their enterprises. The only practical way out of their difficulty that they have found is for the mine owner to enter into a contract with the foreign capitalist, pledging his property as security for a loan made by the capitalist. Payment of principal and interest, as in the Carlowitz contract with the provincial mining bureau, is accomplished by delivery of ore to the foreign capitalist, who markets it, crediting the mine owner with the value of the ore at the market price prevailing on the day of delivery. Sometimes the foreign capitalist delivers machinery rather than any actual sum of money, obtaining payment in ore.

INTRODUCTION OF FOREIGN MACHINERY.

Except at the Shuikoshan mines mentioned above, little or no foreign machinery was used in the Province until the end of 1915. Foreign machinery—that is, hoisting and extracting machinery, drills, air compressors, narrow-gauge railways for transportation of ore—is being introduced into a number of mines that have profited by the increased demand for antimony during the past few years. The enterprise chiefly interested in this expansion is the Hua Chang Mining & Smelting Co. above mentioned. The future promises well for the increased use of such mining machinery, for while labor is plentiful, it is unskilled and wasteful. The experiences of some recent years, when many mine owners were unable to enter the market with supplies because of their inability to produce rapidly, has taught the Hunan mine owner the advantage and economy of using foreign labor-saving machinery in the development of his property. With the unskilled labor to which he has been accustomed, he has often found it necessary in the past to close down his mines completely because of the partial exhaustion of the ore supply, due perhaps to the meeting of some temporary fault in the vein. Some of the mineral-bearing districts are located at a distance from river transportation, and road-making machinery or small railway materials will be required in order to facilitate transportation of the products of the mine. A market for all such materials offers itself now, and the prospect is that the demand will increase. The past two years brought considerable supplies of capital to the Hunan miners from their sales of antimony, and these men are apparently ready to invest this money in the improvement of their property.

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EXPORTS OF MINERAL PRODUCTS.

The following table shows the quantities of mine products declared for export through the Changsha customs during the six years 1913 to 1918:

Metals.	1913	1914	1915	1916	1917	1918
Antimony:	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Regulus	4,717,467	6,126,400	13,018,933	14,175,333	29,608,267	33,185,600
Crude	15,487,267	33,011,333	32,992,400	28,518,400	42,665,733	2,119.040
Ore	9,338,533	20,930,533	2,029,467	602,533	201,600	716,800
Ash	14,100,800	5,718,667	11,092,400	27,912,667	732,533	....
Lead ore	7,945,333	8,833,467	461,467	17,655,467	31,075,467	3,902,080
Steel bars	152,933	98,000	199,867	80,800	156,533	387.520
Tin, in slabs	396,000	290,667	68,667	121,200	99,733	91,840
Zinc ore	21,853,333	28,217,333	12,285,333	1,383,200	14,533	4,480

COMMUNICATIONS: GENERAL INTRODUCTION.

As regards trade and trade routes, the Province of Hunan may be divided into two parts, the western and the eastern. This division is a natural one and is determined by the trend of the great trade routes of the Province. The western portion includes all of the country drained by the Yuan and Li Rivers and their tributaries, down to where these rivers enter the Tung Ting Lake. The eastern district includes all the rest of the Province, drained by the Tzu and Siang Rivers and their tributaries. The city and treaty port of Yochow, located at the place where the Tung Ting Lake drains into the Yangtze River, stands at the dividing point.

Ordinary land transportation facilities throughout these two districts are to-day what they were 2,000 years ago. Freight is carried on the backs of coolies, on wheelbarrows, and by pack ponies to the waterways, where it is put into boats ranging from small bamboo rafts or sampans, capable of conveying not more than half a ton of cargo, to junks carrying nearly 30 tons. Passengers walk, ride in wheelbarrows, or are transported in chairs carried by coolie bearers.

COLLECTING AND DISTRIBUTING CENTERS—WATER TRANSPORTATION.

The Province has three large collecting and distributing centers for trade. These are: Western district—Changteh (customhouse located at Yochow). Eastern district—Siangtan and Changsha (customhouse located at Changsha).

Western district.—From Changteh trade finds its way north, west, and south to the various cities of northern and western Hunan. The Yuan River, which empties into the Tung Ting Lake near Changteh, forms one of the chief trade routes into the Province of Kweichow from Central China. It is the chief trade route of the western district. Its navigation throughout is difficult and dangerous, rapids commencing some 90 miles above Changteh and continuing all along its course and those of its affluents. Boats leaving Changteh do not carry more than 3½ tons of cargo. When they get to within 200 miles of Yuanchow their cargo is unloaded into smaller vessels drawing not more than 16 inches and loading about 1½ tons. These boats ascend the river to Hwangping in Kweichow. All of this river's affluents are navigable, but few by vessels loading more than half a ton of cargo. Freight is consequently very expensive. The Yuan River serves a basin with an estimated area (cf. Richthofen) of 26,100 geographical or 34,300 statute square miles, of which 16,650 geographical or 22,500 statute square miles are situated in Hunan (including a small corner of Szechwan) and 9,000 geographical or 12,500 statute square miles in Kweichow (cf. Richthofen). Above Changteh the river craft are all of the native Chinese type, all flat-bottomed, square-bowed junks propelled by sail, oar, or towrope. Small launches or towed lighters connect Changteh with Changsha, Yochow, and Hankow. During the summer months when the water is high in the lake, shallow-draft passenger steamers ply between Hankow and Changteh. Changteh has an estimated population of 150,000. There has been a good deal of discussion as to the advisability of making Changteh an open port, but nothing has yet been done to accomplish this end. Other important centers of trade in the Yuan River basin are Shenchow and Yuanchow, both places serving as distributing centers for their immediate neighborhoods. Changteh is connected with Shasi on the Yuan River by the Taiping Canal, which is of inconsiderable importance as a trade route. The Li, or Ling, River, which belongs to the western district, drains an area of 6,000 geographical or 8,000 statute square miles. It is navigable only in its lowest portion.

Eastern district.—The Tzu River serves the central part of the Province and flows into the Tung Ting Lake not far from the city of Yiyang. It is navigable only by the smallest kind of boats, which must be pulled up dangerous rapids. It is known to the Hunanese as the T'an Ho or "river of rapids." Its basin covers an area of 7,500 geographical or about 10,000 statute square miles and enjoys easy connections by land with the basin of the Siang River to the east, upon which it depends for supplies and for the sale of its own products. The land routes connecting the basin of the Tzu River with that of the Yuan River are more difficult because they are longer. It is for this reason that the basin of the Tzu River is included in the eastern trade district. Yiyang stands at the limit of launch navigation on this river and is its principal trade center. Shallow-draft steam launches and motor vessels connect Yiyang with Changsha and Changteh. The Siang River is the most important of Hunan's waterways because it is easiest of approach and it commands the largest area. It is navigable high up in its course by vessels loading nearly 30 tons, while all of its numerous and extensive ramifications are partly accessible to the same large-draft boats and to small boats for considerable distances.

The basin of the Siang River, with the cities of Changsha, Siantan, Liling, Hengchow, Paoking, and Yungchow as nuclei, serves as a distributing center for western Kiangsi to the east, Kwangtung and Kwangsi to the south, and the basin of the Tzu River to the west. The area of the Siang River basin is 28,800 geographical or 39,000 statute square miles.

The number of craft plying on the Siang River throughout the year is very great indeed, and necessarily so when one considers the tremendous area that it serves. Launches drawing 3 feet ply as far up the river as Hengchow. The river is obstructed by a number of dangerous submerged rocks about halfway between Siangtan and Hengchow, which make navigation of these upper reaches difficult for boats of more than a certain length. The longest boat that has made the journey successfully thus far has a length of 160 feet. It is the intention of the provincial government to take measures for the removal of these rocks in the near future, when it is expected that it will be possible for shallow-draft vessels to reach Hengchow nearly all the year round. Shallow-draft foreign and Chinese owned passenger steamers drawing from 6 to 8 feet of water connect Siangtan and Changsha with Hankow throughout the summer or high-water months. December, January, and February are the months of lowest water, when navigation for vessels drawing more than 3 feet is impossible above the city of Yochow. During these months passenger traffic is limited to small and very crowded steam launches, while cargo is moved in lighters towed by steam tugs.

With a description of the Tung Ting Lake, the discussion of Hunan's waterways is completed. This so-called lake is really a great level space of silted lowland; dry in winter, when it is traversed by the winding watercourses of the rivers that drain into it from the south and west, it becomes flooded in the summer when the spring and summer rains fill up the rivers of Hunan and their waters rush down to meet a rising flood from the overburdened Yangtze, yellow with the waters and melting snows of Szechwan. The lake is about 75 miles long by 60 broad in summer. Modifying its aspect according to the seasons and the rise of the waters, it is, however, the center of a very active movement of boats. Thousands of junks carrying rice, timber, coal, and salt traverse it unceasingly. Immense rafts composed of an assemblage of beams, planks, and bundles of bamboo attaining sometimes 330 feet in length—in fact, floating villages with their huts to house the raftsmen—traverse its waters, all making their way to or from the Yangtze. A network of canals surrounds the lake.

Totaling the areas of the river basins as given by Richthofen, one obtains the following very interesting results: Siang River, 39,000 statute square miles; Tzu River, 10,000 square miles; Yuan River, 22,500 square miles; Li River, 8,000 square miles; total, 79,500 square miles. When one remembers that the area of the Province, according to the Chinese maps, amounts to 84,000 statute square miles, it will be seen that only about 5 per cent of the total area of the Province is not accessible to its waterways—a remarkable state of affairs which accounts for the fact that the population of the Province has never felt a pressing need for roadways.

CHINESE JUNKS.

Rates of transportation by Chinese junks are arranged between the shipper and the junk guilds. There appear to be no published rates, and such rates as exist are subject to extreme and sudden fluctuations by reason of disturbances in the Province, shortage of boats, and other causes such as difficulties of navigation resulting from high or low water. These rates do not appear to vary with the volume of cargo carried. The following rates have been given to the writer as normal rates on shipments of kerosene oil to various points in Hunan Province and to Chenyuan, a shipping center of Kweichow:

	U. S. gold per unit.
From Changsha:	
To Changteh, 190 miles	$0.01½
To Hengchow, 180 miles	.01
To Siangtan, 28 miles	.00½
To Yiyang, 90 miles	.01
From Changteh:	
To Shenchow, 160 miles	.03½
To Hungkiang, 280 miles	.08
From Hungkiang:	
To Yuanchow, 80 miles	.04
To Chenyuan (Kweichow), 225 miles	.11

FOREIGN SHIPPING COMPANIES.

Three foreign shipping companies maintain regular steamers plying on the Siang River between Changsha and Hankow. Butterfield & Swire, agents for the China Navigation Co. (Ltd.), have two steamers, the *Kian* and the *Shasi*, which make regular trips throughout the summer months. These vessels visit Siangtan, an unopened port about 30 miles south of Changsha, for the purpose of collecting freight. A Japanese firm, the Nisshin Kisen Kaisha, maintains regular sailings between Changsha and Hankow, having three steamers, the *Yuan Kiang Maru*, the *Siang Kiang Maru*, and the *Wooling Maru*. Jardine, Matheson & Co., a British firm, maintain one steamer, the *Chang Wo*, throughout the shipping season from March to November, and add the steamer *Tung Wo* during the busy midsummer months. One Chinese company known as the Chung Hua Steamship Co., maintains a direct steamer service between Changsha and Shanghai, having one vessel, the steamer *Hua Sheng*. It is reported that this company intends to extend its service in the near future, The Standard Oil Co. of New York and its British competitor, the Asiatic Petroleum Co. (Ltd.), maintain their own floating equipment for the conveyance of their oils and cargo from the distributing centers at Hankow and Shanghai to the various points in Hunan that are accessible to steamers. These vessels are light-draft motor-driven barges, and they are able to go as far south as Hengchow on the Siang River and make regular trips to Yiyang and to Changteh in the west. There is a large launch-borne passenger traffic throughout the year between Siangtan, Changsha, and Hankow. The opportunity offers for the successful use of commodious shallow-draft motor or steam-driven ferries between Changsha and Siangtan. Such an enterprise should be a profitable one. At the present time this passenger traffic travels on small, ill-kept steam launches.

DUTIES AND TAXES ON FOREIGN CARGO.

Foreign cargo entering the Province of Hunan comes generally through one of the two large importing and distributing centers on the Yangtze, Shanghai or Hankow. Upon being imported, it pays the prescribed duty, which is generally 5 per cent ad valorem. Various internal taxes exist. The most troublesome tax is the likin tax. This tax, as well as all other taxes en route, may be avoided in the case of foreign imports if the foreign importer will pay a surtax equal to one-half the import tax on his goods. He then obtains what is known as a transit pass, which will carry his goods free from taxation to their destination in the interior. Very often, however, merchants find that the likin is less than the 2½ per cent surtax. In this case the merchant prefers to pay the likin. He imports his goods and obtains from the likin office a pass which operates in exactly the same manner as the transit pass above mentioned. Cargo shipped into Kweichow Province from Hunan is required to pay a boundary tax in addition to the likin that it has had to pay in Hunan Province. Cargo shipped from Hupeh and unaccompanied by transit pass through Hunan to Kweichow is required to pay, first Hupeh likin, then Hunan likin, and third Kweichow likin. A destination tax is levied on the cargo at the point where it is sold for consumption. Likin charges are not necessarily the same in all of the Provinces. For instance, on kerosene oil, likin is levied in Hupeh at the rate of 22 cash per unit; in Hunan, this tax is 32 cash per unit (50 cash at the exchange rate of 1,800 equals $0.03, which at the rate of $1 Mex.[1] to $0.50 gold equals $0.01½ gold).

RAILWAYS.

Hunan has two railways in operation. These are (1) the Changsha-Wuchang and Changsha-Chuchow sections of the Canton-Hankow Railway, constructed by Chinese with capital raised locally, and (2) the Pinghsiang-Chuchow Railway, constructed and operated by the Pinghsiang coal mines for the primary purpose of conveying the coal and coke from the mines at Pinghsiang in Kiangsi 60 miles to Chuchow, for shipment to the iron and steel works at Hankow.

On September 16, 1918, regular trains having first, second, and third class accommodations began to be operated daily between Wuchang and Changsha, as a result of the completion of that section of the Canton-Hankow Railway.

The trunk line connecting the railway and commercial center of Hankow on the Yangtze with the southern port of Canton, which is being built under British supervision in accordance with the provisions of the Hukuang loan agreement of 1909, was nationalized by the loan agreement and put under the control of the Ministry of Communications. It purchased the line known as the Changsha-Chuchow line, which has been referred to above and which had been constructed with provincial capital. Surveys of the section between Changsha and Yochow and Yochow and Hankow were completed by the British engineers in 1912, and construction was begun in that year.

The chief engineering difficulties encountered were the large number of bridges. It was necessary to construct two bridges of 500 and 600 feet across the Sinkiang, a 1,200-foot bridge over the Milo River, a 450-foot bridge over the Lao Tao River, and a 600-foot bridge over the Liu Yang River. In addition to these, and most difficult of all, was a very high bridge over the Lu River, 1,000 feet in length. These were the longest bridges. There were a number of others and many culverts, as the road passes through the flood plains of the Siang River for a good portion of its length.

The total distance of the road between Changsha and Wuchang or Hankow is 225 miles. It will accomplish much toward making Changsha accessible throughout the year by rail to Peking and Hankow.

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[1] See footnote on p. 84.

Through train service is maintained between Changsha and Pinghsiang, a distance by rail of 95 miles, one train a day being run each way. Seven hours is consumed in the journey. The first-class fare is approximately $1.50 United States currency. Freight is divided into five classes and a graduated scale of freight rates used, based on distance run and class of goods carried.

The headquarters of the Changsha-Wuchang and Changsha-Chuchow sections of the Canton-Hankow Railway are located at Changsha. The director of the Pinghsiang-Chuchow line resides at the city of Liling. Both roads are under the control of the Ministry of Communications. It is intended eventually to make Liling the junction of three railways—that is, the Changsha-Chuchow or Canton-Hankow Railway; the Pinghsiang-Chuchow Railway; and the Nanchang-Changsha Railway, route surveys for which were completed during the winter of 1915–16.

From Chuchow to Liling the Canton-Hankow line will follow the route of the Pinghsiang-Chuchow Railway. From Liling it will run south through Yuhsien and Chaling and will probably touch the city of Chenchow before crossing the boundary into Kwangtung.

The Nanking-Nanchang-Changsha line is a portion of a trunk line that has been planned to connect Changsha with Hangchow and Ningpo in the Province of Chekiang. The completed roads connecting Ningpo, Hangchow, Shanghai, and Nanking will form one section of this road. From Nanking to Nanchang, the capital of Kiangsi Province, the road is to be continued and will be extended from Nanchang to the Hunan border somewhat north of the coal mines at Pinghsiang, thence south to the city of Liling, where, as stated, a junction will be made with the Canton-Hankow and Pinghsiang-Chuchow lines. This road will be of the greatest importance to the Province, affording as it will a direct connection between Hunan and the sea, and an outlet for Hunan's tremendously rich coal and ore deposits. This road will be constructed by British capital under the control of the Ministry of Communications. The managing director's office is at Nanking. Surveys of the route to be followed were completed in the winter of 1915–16.

Another road of importance, second only to the Nanking-Changsha line, has been projected to connect the Yangtze River trade mart of Shasi with Changteh, the chief distributing center for the Yuan River basin in Hunan. It will be extended from Changteh, following the course of the Yuan River west, to the Province of Kweichow and to the city of Singyifu in the southern part of that Province. An agreement was entered into in December, 1913, with Pauling & Co., a British firm. Surveys of the route of this railway have been completed. The line will follow the basin of the Yuan River in Hunan. It is proposed to connect Changteh with Changsha by a branch road.

The completion of the railways planned will make Changsha an important railway center.

A recent enterprise is a proposed line from Chuchow through Paoking, Kweilin, and Liuchowfu to Nanning, and thence to the sea at Yamchow (Chinchow), or Pakhoi. An alternate route from Liuchowfu runs through Kweihsien southwest to Kwangchow. An alternate northerly route follows the Canton-Hankow line to Hengchow, passing thence through Yungchow to Kweilin.

ABSENCE OF TRAMWAYS.

No tramways exist in the Province of Hunan. The reason is simply that projects for the construction of such lines have never been seriously broached. It is believed that considerable water power is available in the central part of the Province, especially along the Tzu River, which could be developed for the purpose of furnishing electric power for electric railways, to the great benefit of the mining interests and passenger traffic between the cities of the interior of the Province. The large coal fields of the Province are another source of energy that could be used for the electrification of railways. Development along this line awaits some enterprising organizer of capital and is sure to meet with success.

ROADS.

There are almost no cart roads in the Province upon which four-wheeled vehicles drawn by draft animals or propelled by motor could be used. Such roadways as do exist are narrow footpaths which have been used for centuries and which, paved with a single line of heavy stone slabs, are well suited for the wheelbarrow, pedestrian, and single-file chair-bearer traffic that makes use of them. Chinese maps give two ancient courier roads through the Province. One from the city of Wuchang in the Province of Hupeh enters Hunan in the northeast corner and passing through Yochow turns south to the provincial capital, Changsha, whence it follows the valley of the Siang River south to Hengchow. From Hengchow it follows the valley of the Lei River and passes through the cities of Leiyang, Chenchow, and Yiyang, where it crosses the provincial boundary into the Province of Kwangtung and proceeds to the city of Canton. This road connected Canton with Peking in the past. Richard states that it is paved throughout and furnished from end to end with inns, warehouses, and cattle sheds, all bespeaking the great activity that prevailed throughout its length. The route of the Canton-Hankow Railway will follow this road.

The second courier road enters the Province from Shasi in Hupeh, passes through Lichow in northern Hunan, touches Changteh, and then proceeds west and south up the valley of the Yuan River through the cities of Shenchow and Yuanchow and across the boundary to the city of Kweiyang in the Province of Kweichow. A branch connects this road at Changteh with the provincial capital of Hunan, Changsha. This road is the highway for traffic between the Yangtze Valley, Hunan, and the Provinces of Kweichow and Yunnan. The route of the proposed Shasi-Changteh-Singyifu Railway will follow this road. All the cities in the Province are connected by narrow roadways accommodated to the pedestrian and wheel-barrow traffic.

The two routes described above are the chief roads of the Province and the chief trade routes. Other important trade routes are (1) to Fukien by way of Pinghsiang through Kiangsi to the affluence of the Min River of Fukien and (2) to Szechwan. There are two trade routes to Szechwan from Hunan Province. The first is by the Taiping canal connecting Changteh with the Yangtze opposite Shasi. This route is followed in summer, winter traffic going by way of Yochow and the Yangtze. The second route is by way of Changtehfu over the courier road to Shenchow and thence to Yuyang and Fuchow in

Szechwan. There is a third but very difficult route to Szechwan that is used by travelers and those merchants who carry valuable goods in a small compass. It runs through Tzulihsien, Yungtinghsien, Lungshanhsien, Leifenghsien, and Kienkianghsien to Pangshinhsien, whence boats are taken down the Kien River to the city of Fuchow in Szechwan. A trade route connects the important mining center of Paoking with Siangtan by way of Hsianghsiang. Paoking is connected with Yuanchow by way of Wukang, and with Changteh by way of Sinhwa, Anhwa, and Taoyuan. Another and very important trade route parallels the first-described courier road and runs the entire length of the eastern part of the Province from Yochow through the cities of Pingkiang, Liuyang, Liling, Yuhsien, Chaling, Anjen, Yunghsing, and Chenchow to Yichang. A trade route of considerable importance connects Yungchow—in the far south of the Province on the highway to Kwangsi and an important lumber center—with the city of Hengchow on the Siang River, passing through the city of Chiyang.

In the year 1917 work was begun in Changsha on the system of roadways that are to connect the waterfront with the railway connecting the city with Wuchang and Hankow. The railway station is to be built in the northeastern part of the city, and it is to be connected with the Bund by the roadway between the Hunan Yale Hospital and the Yale Mission College. The plan involves a junction of these new roads with the military road between Changsha and Siangtan to the south.

There is not as yet an automobile in the city of Changsha, or, in fact, in the whole Province of Hunan.

POSTAL FACILITIES.

The Chinese postal service in Hunan Province is very satisfactory. Statistics for 1917, the latest available, show that at the end of that year there were in operation 57 head, first, second, and third class offices and substations and 338 agencies. Of these there were 22 offices handling domestic parcels and C. O. D. deliveries; 15 money-order offices of Class A (that is, maximum amount of single money order, $100 Mex.; maximum number of money orders issued to single person on same day, three); 26 money-order offices of Class B (that is, maximum amount of single money order, $50 Mex.; maximum number of money orders issued to single person on same day, two); 18 express delivery offices; 27 steam-served offices; 25 offices exchanging parcels under Union regulations. During the same year, 13,154,100 pieces of mail matter of all kinds were received, and 6,505,900 were despatched. Parcels received numbered 170,400, weighing 659,100 kilos. Parcels despatched numbered 31,600, weighing 68,500 kilos. Money orders were issued to the value of $385,900 United States currency (with exchange at $0.50) and cashed to the value of $397,000. The total mileage covered by the postal lines in the Province is 7,091, classified into 126 separate lines, of which 9 are served by steamers or trains, 33 by fast day and night couriers, 83 by day couriers, and 1 by native Chinese boats. Over one of these courier routes, via Shenchow and Suishan, which traverses the most difficult roads of the Province, is maintained a fast uninterrupted day and night courier connection between Changsha and Chengtu, the capital of Szechwan.

The Japanese maintain the only foreign post office at Changsha. By its service parcels and money may be transmitted to and from the United States.

Parcels are accepted by the Chinese post office for any of the countries in the Postal Union under conditions specified in the International Postal Tariff. Money orders are obtainable only for the transmission of small sums between certain places in China.

It usually takes from 30 to 35 days to receive first-class mail matter at Changsha that has been posted at New York. In order to arrive in this time the mail matter must make excellent connections en route.

TELEGRAPHS.

The telegraph service in the Province is also very satisfactory. Rapid transmission of messages is maintained between Changsha and Hankow. Facilities for sending messages south or west are not so good. Rates are fixed according to whether the message is in the Chinese or a foreign language. On plain Chinese messages the rate charged within the Province is 6 cents Mex. per word; to places in China outside of the Province, 12 cents Mex. is charged. On messages in foreign languages, whether plain or coded, the fixed rate within the Province is 9 cents Mex. per word, and to places in China and outside the Province, 18 cents Mex. is charged per word. Telegrams directed to points in the United States are sent over the Chinese Telegraph Administration lines as far as Shanghai, where they are handed over to the Pacific Cable Co. for transmission via Shanghai-Manila cable to America. The rates are fixed in terms of francs and are subject to variation at the beginning of each quarter with changes in exchange. They also differ for the various cities in the United States. Morse instruments are generally used in the service, but where traffic is heavy and rapid work required automatic Wheatstone instruments are used. All of the principal cities in Hunan are connected with Changsha by telegraph. The service is extended by the Government as required by commercial or political interests.

TELEPHONES.

Changsha is the only city in Hunan that has a telephone service. Seven hundred and fifty instruments are used and an extension of the service is already being undertaken. A charge is made for installing an instrument, after which the monthly rate is $6 Mex. (about $3 United States currency). The system in use in Changsha was purchased from the Western Electric Co. The instruments are "microphone instruments," that is, receiver and mouthpiece are attached to the same handle and held to the ear and mouth in one hand. When the receiver is taken from the instrument, the user is connected automatically with the central exchange, where he is connected in turn with the number that he gives. The telephone administration maintains a wire that connects Changsha with Siangtan, a city about 30 miles south of Changsha. Changteh is reported to be organizing a company for the installation of a telephone service. The Chinese have been quick to appreciate the value of the telephone and are introducing it wherever they can collect capital for the purpose. It is understood that the Government intends to take over the telephone lines of the various Provinces and administer them with the telegraphs.

NEWSPAPERS.

Newspapers are constantly being started and are as constantly disappearing with each political wave. There are two Chinese newspapers at Changsha. One is the Ta Kung Pao, which has a daily circulation of 4,000 to 4,700; the other is the Hunan Kung Pao, with a circulation of about 2,400. No foreign papers are published in the district. Changsha is the only city in the Province having a number of newspapers, while Yochow is understood to be the only other city in the Province that has any newspaper at all. Shanghai papers—namely, the Shen Pao and the Shih Pao and all of the foreign newspapers published in Shanghai—have a circulation in Hunan. Changsha newspapers do not appear to be sold in the streets. New issues are pasted daily on bulletin boards, near the place where they are printed, for the reading street population. The ability to read does not seem to be limited to the wealthy classes. One constantly sees jinrikisha coolies poring over portions of newspapers and small story books. The writer is inclined to estimate the percentage of the population able to read at 30 per cent. The percentage would be higher among the residents of cities than among the residents of the country districts. For ordinary advertising purposes the Chinese newspaper is a safe vehicle, as the Chinese merchant or purchaser of machinery, whom a foreign manufacturer desires to reach, is always able to read and generally takes one or more Chinese newspapers. Advertising rates in the above-named papers are as follows:

Ta Kung Pao.—This newspaper charges a rate of $3 Mex. per English inch (width) per month for half page. This rate is doubled for the space next to the title, and is halved for the space in the center margin where the paper is folded.

Hunan Kung Pao.—This paper charges a rate of $2.50 Mex. for each inch (width) for half page per month. For a full half page a fixed price of $50 Mex. is charged per month. This rate is doubled for the space next to the title and is halved in the case of the space in the center margin where the paper is folded.

There are approximately 4 lines of ordinary Chinese type to the inch. The half page is 9⅜ inches long; 48 characters will make up one line, allowing a total of 192 characters to the inch. A prominent American firm located at Changsha uses 2 inches of space for its advertisement, in which it sets forth an account of its business undertakings and the kinds of products for which it is the agent.

PUBLIC WORKS AND SANITATION.

Irrigation is general throughout the agricultural districts of the Province, large quantities of water being necessary to the cultivation of the principal field crop, which is rice. Irrigation is accomplished by individual enterprise, protected by custom and by the criminal laws of the country. There are no large public irrigation projects. Projects have been talked of for the reclamation of ground along the western borders of the Tung Ting Lake, now subject to annual floods, but little has been done toward the accomplishment of this purpose beyond the maintenance of the ancient dikes that exist along the canals and rivers communicating with the lake. The provincial government has also been considering plans for the dredging and keeping open of a ship channel between Changsha and the Yangtze River, through the lake, throughout the year. Besides the marking of the shifting channel nothing has been done, however, toward the completion of this project.

The cities of the Province, like most of the cities of the country, have no adequate system of drainage, fire protection, or water supply, as such systems are understood in the United States. Most of the cities have ancient sewage systems but have outgrown them, and little effort appears to be made at the present time to cope with the situation and enlarge existing sewers. Changsha, the capital of the Province, is the best-kept city in the district. It has a public-spirited population, which supports an excellent police force. The police commissioner maintains a street-cleaning service, which works very successfully in keeping the well-paved streets in good condition. Water is carried by hand from the river and from wells distributed throughout the city. Both sources are liable to contamination, and it is therefore necessary to boil or distill all water brought to the house. Each house that has a private well is required by the police to put a notice to that effect near its front gate, in order that the well may be accessible for the purpose of fighting fires. Semivoluntary fire companies, reinforced by the city fire company maintained by the police, turn out when an alarm is rung from the bell at the central police station; hand-pumps are used to pump the water from the wells to the fire; bucket brigades are also employed. These companies work well and accomplish a great deal, considering the means at their disposal. Disastrous fires occur now and then, but blazes are usually limited to the premises where they originate, as each house is surrounded by a fire wall of brick 30 to 40 feet in height.

Street lighting is accomplished by means of individual oil lamps, displayed by the owners of houses under requirements established by the police. The city of Changsha now has two electric light companies, between which the lighting of the city has been divided. The older company is known as the Hunan Light & Power Co. The current that it furnishes is an alternating current, the voltage from the tension wires to transformers being 2,000. The voltage used in buildings is 220. The new electric light company is known as the Kwang Wha Electric Light & Power Co. It furnishes an alternating current, 3,300 volts from high tension wires to transformers, the voltage used in buildings being 220. The transmission lines are all hung on poles and service is good. The machinery used is German, though additional machinery is to come from American manufacturers. The older company has been slow to extend its service, but with the advent of competition in the shape of another company the prospects are good for a large increase in the amount of current used for various purposes, as opportunities for encouraging the use of individual motors in woodworking shops and machine shops are awaiting an energetic business manager. The price per unit in houses is 13 cents Mex. (about 6½ cents United States currency) per meter unit.

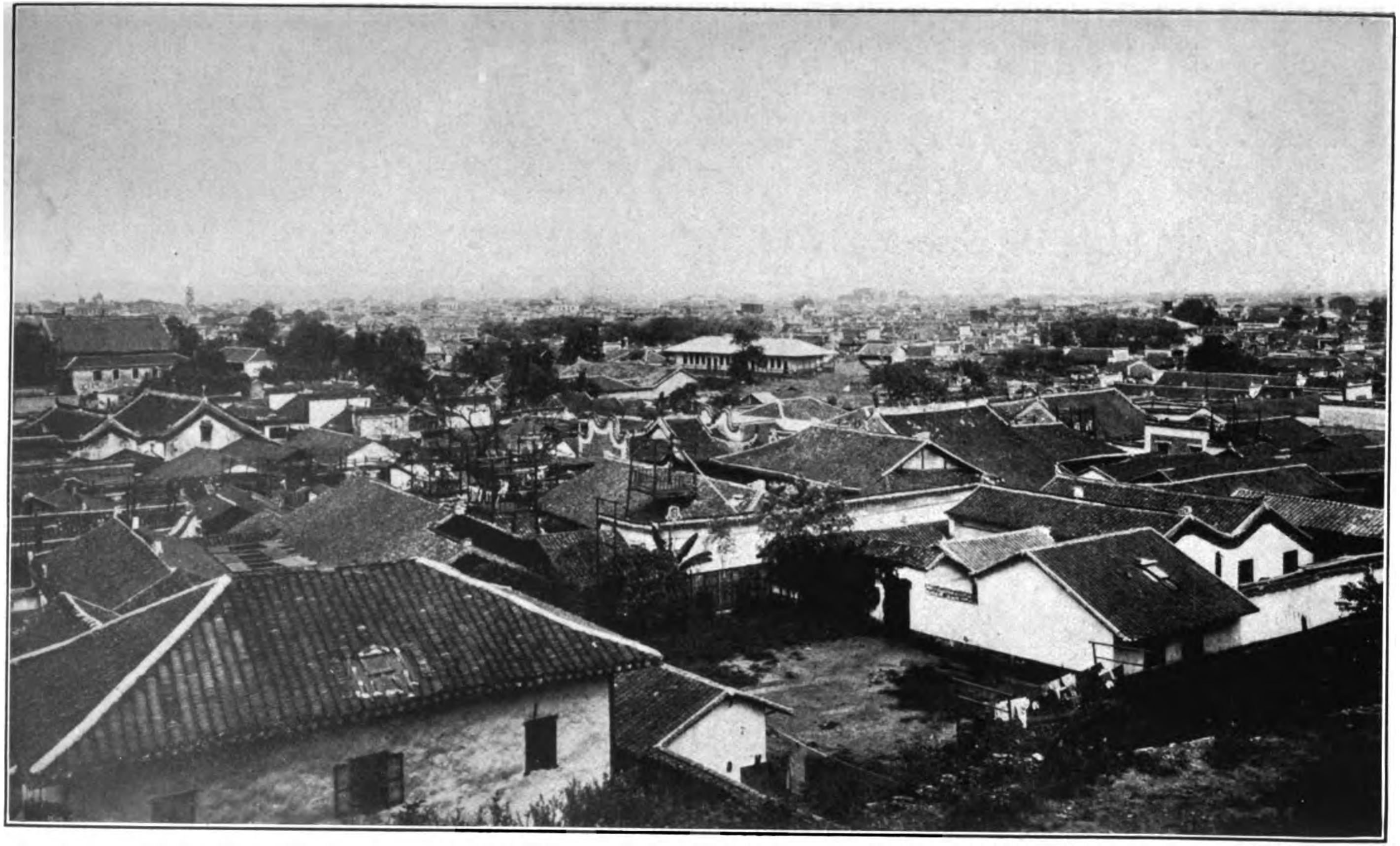

FIG. 35.—VIEW OF CENTRAL DISTRICTS OF CHANGSHA.

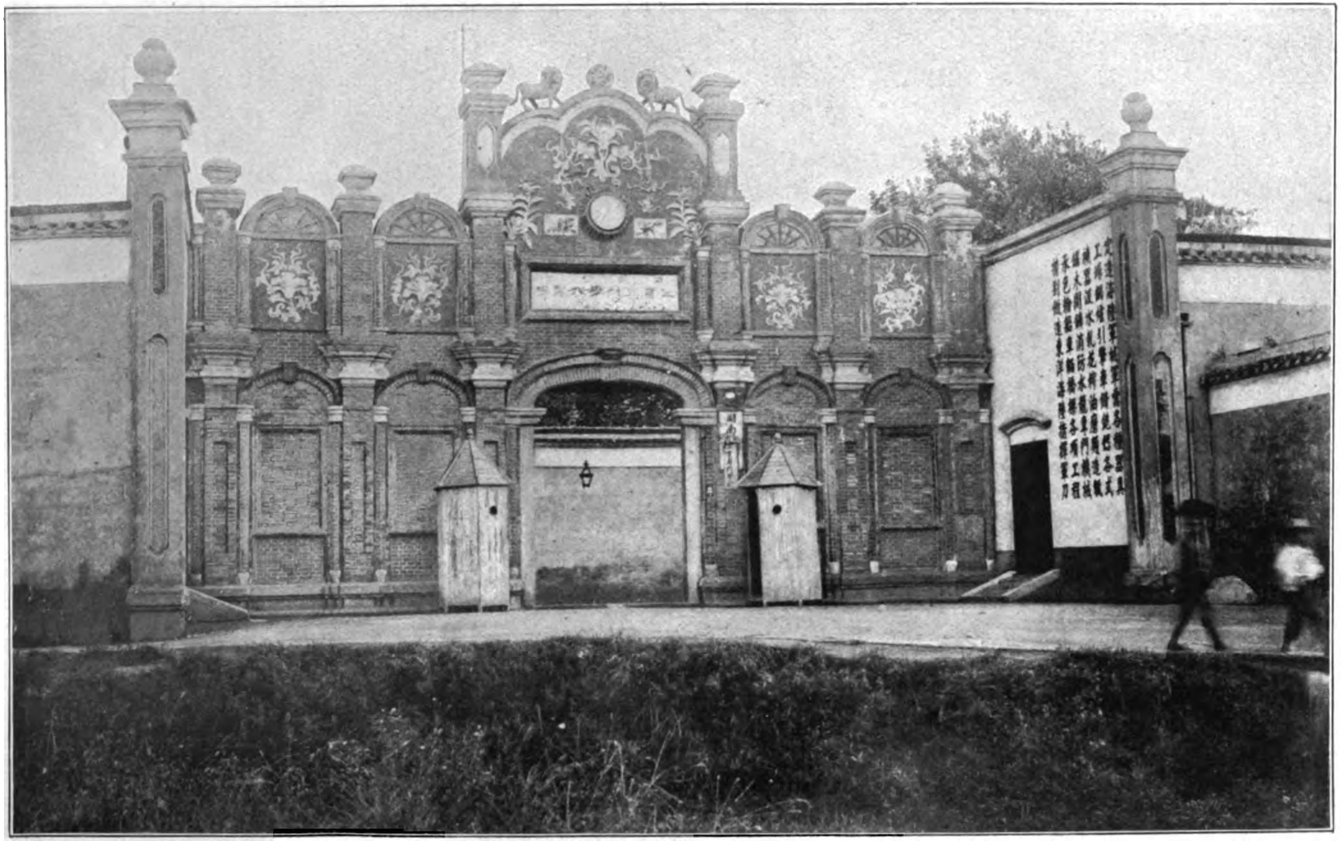

FIG. 36.—ENTRANCE TO MACHINE SHOPS, TECHNICAL SCHOOL OF CHANGSHA.

TREATY PORTS AND FOREIGN CONCESSIONS.

There are two treaty ports in the Province of Hunan, Yochow and Changsha. There has been some talk of the opening of Changteh, but nothing has yet been done toward the realization of this idea. The city of Yochow, with a population of about 20,000, is situated on the narrow passage that connects the Tung Ting Lake with the Yangtze River. The city stands at the gateway to the Province, and its customhouse and likin stations collect toll on the trade that passes into the western trade district of Hunan. Yochow was opened to foreign trade in 1898 by an imperial decree. The city of Yochow itself is built on a bluff with a fine outlook to the west over the lake. Its site does not afford shelter, however, for small vessels, and it was therefore necessary to establish the port and customhouse at Chenglin, some 5 miles north of Yochow and a mile from the Yangtze River. Here a small creek provides the needed shelter for cargo boats and a good anchorage is found for steamers. At Chenglin the Chinese Government has set aside a place for a cosmopolitan settlement, for which they provide roads, police, etc. Yochow has no direct trade with foreign countries. At the present time it serves simply as the customs port for Changteh and western Hunan. The Canton-Hankow Railway will pass through Yochow and may give it an increased importance, especially as a port of transshipment for Changsha during the winter months, when the river is low and water communication between Changsha and the Yangtze is cut off. No consulates have been established at Yochow.

Changsha, the capital city of Hunan, with a population of 229,000, was opened in 1904 to international trade, in accordance with the British commercial treaty of 1902 and the Japanese commercial treaty of 1903. Article 10 of the latter treaty provides as follows:

> The Chinese Government agrees to open to foreign trade, within six months from the exchange of the ratifications of this treaty, Changshafu in the Province of Hunan, on the same footing as the ports already opened to trade. Foreigners residing in this open port are to observe the municipal and police regulations on the same footing as Chinese residents, and they are not to be entitled to establish a municipality and police of their own withing the limits of this treaty port, except with the consent of the Chinese authorities.

The Chinese authorities laid out a site for a proposed cosmopolitan commercial port (Chinese interpretation of the term "treaty port") just outside of the north wall of the city. Regulations were drawn up in conjunction with a representative of the Japanese Government providing for the boundaries of the new settlement, fixing the lease rates on property, municipal tax rates, and imposing a tax on imports for the defrayal of the cost of erecting bunds and making road improvements. These regulations have not received the approval of the diplomatic body at Peking, and are therefore not considered enforceable as regards foreign residents. The settlement site as set apart by the Chinese Government is unsuitable, chiefly because it is not near a part of the river where vessels can find proper anchorage. Foreign shipping companies have placed their jetties and hulks along the bund outside the west wall of the city, where plenty of water has been found for a ship's anchorage. Houses for the customs staff, the postal officials, the British consulate, and the managers of the Standard Oil Co. and Asiatic Petroleum Co. have been erected on a long, narrow island in the river that parallels the west wall of the city.

The Japanese consulate is located on the waterfront of the site above referred to as having been laid out as a cosmopolitan settlement. The American consulate is located in a leased foreign house on the waterfront outside the Fu Hsing Gate of the city.

The Chinese authorities have endeavored to put every obstruction possible in the way of ownership and leasing of land by foreigners in and around the treaty ports of Changsha and Yochow. They have endeavored to limit such residence to the site of the so-called International Settlement, and regulations for the settlement limit the period of a lease to 30 years, with privilege of renewal for a similar period. All of these questions, however, remain open and are still occupying the attention of the diplomatic body at Peking in its discussions with the central Chinese Government.

FINANCE AND BANKING.

The square-holed copper coin known as "cash" is, to all intents and purposes, still the unit of exchange used throughout the Province in transactions of all kinds. Though the "cash" themselves are not often seen, their place has been taken by the copper pieces representing 10 cash each. A paper note currency has been issued by the various banks, with the exception of the two Government banks (the Bank of China and the Bank of Communications), based on this copper 10-cash currency. These notes run from 10 cents (100 cash) to 100 cents (1,000 cash or 1 "tiao" or "string" of cash). There is a provincial tael or ounce of silver which is the unit of value used in large commercial transactions. The depreciation of this tael as compared with the Hankow tael is graphically shown by the fact that prior to 1911 98 Changsha taels equaled 100 Hankow taels, while on July 18, 1916, 235 Changsha taels equaled 100 Hankow taels.

While the last rate just given is doubtless somewhat abnormal, it is nevertheless a fact that the Changsha tael has depreciated steadily in value since 1911 because of the overissuance of note currency and because of lack of confidence among the merchants and gentry. The result has been that foreign firms doing business in Hunan quote their prices in Hankow taels, and send all surplus money received to Hankow for deposit. The dollar currency is divided into "clean" and "chopped." The "clean" dollar is an unchopped Mexican dollar—that is, one that has not been defaced by the process known as "chopping." "Chopping" a dollar consists in impressing upon the surface of the coin a mark or "chop" from a hard metal die. A dollar soon becomes so "saucered" by the process that it will no longer stack. Of course, such dollars are discounted, a fact that tends to limit their circulation to a single city or district. The use of "clean" dollars is being encouraged by the branches of the Bank of China and Bank of Communications that have been established in Changsha. Subsidiary 10 and 20 cent silver coins are not received with favor in Changsha or in the northern parts of the Province. They come into the southern part of the Province from Kwangtung and Kwangsi and are used almost universally to the exclusion of other kinds of coins as far north as Hengchow in southern Hunan. Hengchow merchants collect them and ship them to Shanghai under favorable exchange conditions, converting them into credit in the Shanghai banks, against which supplies of foreign piece goods, etc., are purchased.

Foreign import houses that are established in Hunan are all branches of Shanghai and Hankow houses and do their business through Hankow and Shanghai, quoting their prices in Hankow taels. Prior to the opening of the port of Changsha to trade, the Chinese banks monopolized commercial transactions with Hankow and Shanghai. The opening of the port of Changsha and the appearance of import and export houses brought about the gradual elimination of the Chinese banks from this business. The depreciation of the Hunan tael currency has caused that unit of exchange to be absolutely discredited as a medium of purchase.

The principal Chinese banks are the Bank of China and the Bank of Communications, both Government institutions, and the Bank of Hunan, a provincial institution. These banks all do a general banking business, receiving money for deposit, issuing bank notes, and making loans on real estate, or, in the case of the Bank of Hunan, on rice and other crops. The Bank of China pays on current tael accounts interest at the rate of 2 per cent; on dollar deposits of three months' duration, 2½ per cent; six months, 3 to 3½ per cent; and on dollar deposits for a year, 4½ to 5 per cent. Eight per cent is charged on overdrafts. The bank will make short-time loans up to 60 per cent of the value of the real estate offered as security, charging interest at the rate of 7½ per cent. The Bank of Hunan pays no interest on current accounts; on dollar deposits of taels it pays 4 per cent on deposits for 3 months, 5 per cent on 6 months' deposits, and 5½ per cent on deposits of one year. The bank of Hunan charges interest at the rate of 6 per cent on overdrafts. It will make a short-time loan on real estate up to 60 per cent of the value of the property offered as security, charging 8 to 9 per cent interest. Similar rates are charged on loans secured by crops.

The Yü Hsiang Bank, opened during 1918, has acted as the fiscal agent of the provincial government and has issued both silver and cash notes redeemable at par.

Chinese banks are of ancient standing. They furnish the paper currency that is used by the people and enable them to remit sums of money safely from one trade center to another.

On May 1, 1917, a branch office was opened in Changsha by the China-Japan Bank (Ltd.), a Japanese banking institution reported to be capitalized jointly by Chinese and Japanese funds and backed by the Japanese Bank of Taiwan. This is the first foreign bank to be located at Changsha and is the only one offering to sell foreign exchange.

The Chinese would welcome the establishment of an American bank at Changsha, especially one authorized to issue its own notes, as they believe it would help materially toward stabilizing the local currency. Such a bank should soon have a thriving business of remittances and deposits. The Chinese claim that there is plenty of money at Changsha but that it has been hoarded on account of disturbed conditions. Foreign business men would also welcome the establishment of an American bank having facilities for handling remittances and foreign exchange. Recognizing the situation, the Asia Banking Corporation has announced its intention of opening a branch in Changsha in October, 1919. The International Banking Corporation also has in contemplation the establishment of a branch there.

MANUFACTURING AND OTHER INDUSTRIES.

Hunan's principal industries are those of ore smelting, and it is in these industries that the greatest progress has been made in the introduction of modern methods and machinery. The vegetable-oil, dye, firecracker, clothing, and other industries continue to remain home industries.

INDUSTRIES CONNECTED WITH MINING.

Reference has already been made to the Shuikoshan lead and zinc mines. With the exception of these mines and two or three recently opened mines for which modern mining machinery has been ordered, the mines of the Province are practically all worked with the primitive methods that have been used without material alteration for centuries past. A Chinese mine has been described as a "ragged hole in the ground off which numerous irregular-shaped excavations have been made, following the ore and working it out wherever it is found in sufficient quantities." Development work is rarely or never undertaken, so that reserves of ore, for the tiding over of a period when poor ore zones are met, are never made. Practically all of the work is done under contract, whether mining, hoisting, dumping, or ore treatment. The method of working and the control and direction of operations is generally left entirely to the workmen. The mining is let to one or more underground contractors and is paid for according to the quantity of picked ore delivered. The contractor engages the miners and provides the necessary tools and explosives. Chinese black powder is used in blasting. The fuse is of straw and touch paper filled with powder. Flare lamps, made of an iron saucer suspended at the end of an iron rod with wick immersed in vegetable oil, are used for light. Mr. A. S. Wheeler (cf. Far Eastern Review, September, 1915, "Metalliferous Mines of Hunan Province") gives the following description of the pumps used:

> The pumps used are quite ingenious. They are made of bamboos 5 inches in diameter from which the inside rings have been cut out, thus forming the pump barrel. The rod is a long strip of bamboo, to the end of which is fixed a disk of hide of the same diameter as the bore of the bamboo. This acts as a flap valve and is seated or supported on a smaller disk of wood. A crosspiece fixed to the other end of the strip serves as a handle. The pump coolie actuates the plunger, and the discharge end of the bamboo delivers the water into a small cistern or sump, on which he sits. The suction of a similar pump above him draws from this cistern and raises the water to the one next above, and so on. The method is crude, but it answers admirably for comparatively shallow workings, as labor is cheap and the capital outlay is a minimum.

The miner in his work underground breaks off the ore and eliminates the waste rock before the ore is dragged out of the mine in basket loads weighing eighty-odd pounds each. Further waste rock is then detached from the ore by hammering, and the ore is sorted before it is put into the smelters.

The smelting of antimony is the chief of Hunan's mining industries. Crude antimony, or concentrated antimony sulphide, is manufactured by the Chinese by a process of smelting. The ore in small lumps or dust is heated in a clay pot. The sulphide fuses easily and melts, percolating through a hole into a lower earthenware pot, whence it is ladled into molds. Crude antimony manufactured by this method contains about 70 per cent antimony. The residuum or "antimony ash" left after liquation contains sometimes as much as 30 per cent of antimony. This was formerly considered as so much waste, but the high prices commanded by antimony during recent years encouraged the smelters to roast out this waste for its antimony content.

The Hua Chang Mining & Smelting Co., a Chinese company operating a number of mines for different metals, acquired in 1908 the French patent rights in China of the Herrenschmidt furnace used in the manufacture of antimony regulus or refined antimony. The plant was installed in their works in that year, under the supervision of two French engineers, with a capacity of a ton of antimony regulus per day. The process consists briefly in mixing the broken antimony ore with charcoal and heating with regulated admission of air. This converts the sulphide into oxide, which is volatile and is drawn off and condensed in special chambers. The oxide is then mixed with suitable fluxes and smelted in the ordinary reverberatory furnaces. Chinese regulus runs over 99.5 per cent of metal. The Hua Chang Co. has increased the capacity of its plant at Changsha to 20 tons per day, with local materials and workmen.

Mr. Wheeler describes as follows the Chinese methods of extracting tin:

> The dressing of the ore consists of cobbing and sorting, the clean arsenical ore being stacked for separate treatment. The remainder is then roasted, the arsenious oxide (the "arsenical soot" of commerce) being collected by condensation in dome-shaped chambers built of rough stone and plastering, with clay inside. This soot is placed in thin iron basins over a fire, covered with similar basins inverted, and subjected to a prolonged second heating, when the arsenious oxide is deposited as a "glass" on the upper basin. It is sold in this form for agricultural purposes. The roasted ore is then crushed by water-driven Chinese stamps, after which it undergoes a series of concentrations.
>
> The first of these is effected by raking the ore over from side to side into a shallow stone-paved pit in which water is flowing. The "heads" from this operation are further concentrated by repeated washings down a concave-shaped incline. The concentrates are then mixed with loam and reroasted to drive off the associated arsenic, after which they undergo a second crushing and concentration as above described. The smelting is conducted in a cylindrical furnace built of brick or stone, bound with clay. The blast is supplied by a double-acting Chinese bellows through a 2-inch opening, pointed downward from the back of the furnace. The furnace door is stopped with clay and a layer of live charcoal is placed on the furnace bottom and blown up to a good heat. About 50 catties (approximately 67 pounds) of concentrate mixed to a thick paste with "incense wood" pulp is then charged in and covered with a layer of charcoal. The smelt lasts for 24 hours, charge and fuel being added half-hourly, and the blast continued throughout. Shortly after starting an iron rod is inserted in the furnace door, and through this tap hole the molten tin trickles out slowly into a clay-lined depression, where it is kept covered with live charcoal. When sufficient has collected it is ladled into sand molds, forming ingots of about 45 catties weight (approximately 60 pounds) each. The metal thus obtained runs over 99 per cent tin.

Quicksilver is produced in the western part of the Province from mercuric sulphide or cinnabar. The cinnabar product of the richer ore is sold as cinnabar and is understood to be used as a pigment. The poorer ore and tailings left from panning the richer ore are retorted for their quicksilver content. Concerning this process Mr. Wheeler says:

> The retort used consists of a thin iron basin 30 inches in diameter supported on stonework at a height of about 8 inches above the ground level. Two other basins, from which the bottoms have been burned out, leaving only deep rims, are fitted in reverse positions into each other and placed on the lower basin. The uppermost is

then covered with a thin iron plate, leaving a circular opening of about 12 inches, and on this is placed an earthenware pot upside down. The ore, previously crushed, is charged into the lowest basin, and all joints are luted with clay. A semicircular channel of clay is molded around the inner periphery of the top basin and communicates with the interior of the retort by means of three holes. A wood fire is lit and heats the ore. The cinnabar dissociates into mercury and sulphur dioxide; the fumes of the former rise up and partly condense on the interior of the earthenware pot and partly pass via the communication holes into the semicircular channel. The latter is thus a collecting ring, the contents of which go to the company as their share to defray cost of furnace, basins, pots, etc. The amount so collected is stated to vary from 12½ to 15 per cent of the total distillate, but this is rarely if ever checked by actual weighings or tests.

The miners will not permit the ring and holes to exceed certain dimensions, which, however, vary widely at the two mines. It is certain that such factors as grade of ore and heat applied would materialy affect the percentage passing into and condensing in the collecting rings. The condensing pot is removed by hand when too hot (this is ascertained by spitting on it as clothes ironers try the heat of an iron) and a fresh pot substituted. Despite the total lack of precautions in conducting the retorting operations and the leakage of the retorts, very few cases of salivation were noticed. It was stated that furnace men were fully alive to the danger of this work and do not keep at it for more than three or four years.

Sulphur is secured by the distillation of iron pyrites. The lump ore is placed in long cylindrical clay crucibles covered with moist clay and supported in an inverted position over shallow pots standing in running water. The crucibles, 80 or more to the furnace, are packed around with coal cake, which is allowed to burn for 24 hours. The clay covering dries and cracks, permitting the escape of molten sulphur, which trickles into pots cooled by the running water.

MANUFACTURE OF VEGETABLE OILS.

Perhaps next in importance to the mining industry comes the industry that is concerned with the manufacture of vegetable oils. The same method is used with slight variations throughout this industry. The oil-bearing seeds are dried and then crushed in a mill consisting of a circular trench in which a stone wheel travels, pulled around by a water buffalo or ox. The seed meal thus produced is then steamed. An iron ring about a foot in diameter is laid upon the floor and upon it is laid a kind of container made of a bunch of coir fiber tied tightly at one end, leaving the loose ends flaring out and extending beyond the circumference of the iron ring. Upon this container a weighed measure of the steaming seed meal is placed, the ends of the fiber are folded over, and the whole is pressed down with the feet so that it completely fills the iron ring. Another iron ring is placed on the top of the completed cake of hot meal, and the same process is followed until one has a pile of iron-ringed cakes about 4 feet high or sometimes less. The pile of cakes is then placed in a press made of a hollowed tree, wedges are inserted at one end, and the process of expressing the oil begins. The iron rings serve as an elastic wall for the meal cakes, the spaces between them growing less and less with added pressure. The oil runs out of an orifice in the bottom of the hollow tree press and collects in a jar buried in the ground, whence it is ladled out into containers and is ready for the market.

PREPARATION OF TEA.

Green and black, or "red," teas are produced in large quantities throughout the Province, the districts of Hsinhua and Anhua in the central part being, however, the most important tea-producing centers. These teas are produced from the same plant. The difference in color is due to different processes of manufacture. The green teas are the result of firing in copper roasting pans, while black tea is produced by a process of fermentation, the leaves being exposed to the open air. The green tea retains far more of the oil and sap peculiar to the leaves. The black teas undergo a partial fermentation as they lie in heaps after the first roasting. The black tea leaves become oxidized by the longer contact in a moist state with the atmosphere.

MISCELLANEOUS INDUSTRIES.

The manufacture of nankeens or native cotton goods is still a home industry, wooden Japanese and Chinese made hand looms being used in the houses.

Modern methods are reported to have been introduced into the brick industry, for which there are kilns and great drying sheds along the river south of Changsha. A plant located 10 miles south of Changsha, on the left bank of the river, is equipped with machinery for the manufacture of bricks and pressed roof tiles. The products are fine-grained, firm, red bricks (the Chinese-made brick has generally a dull bluish-gray color) and tiles of foreign pattern, with interlocking edges.

A Chinese company owns and operates a flour mill equipped with the latest American roller-mill machinery and is doing an increasingly prosperous business.

Matches are made in a modern factory near Changsha and are equal in all respects to imported Japanese safety matches. The sticks for the matches, as well as the match boxes, are imported from Japan.

The cloth-dyeing industry is a vigorous one. Crude prints in blue and white are made in the following manner: The cloth is laid on long tables and a stenciled design cut in oiled cardboard or leather is laid upon it. A thin coating of lime wash is then spread over the stencil and after drying the stencils are removed, leaving a figured design in white lime on the cloth. The cloth and lime design are then painted with indigo, and the painted cloth is spread out in the sunlight, where it is thoroughly dried. The final process consists of scraping the dried lime from the cloth, which leaves the white design on the blue background. The results are similar to those in the so-called Japanese toweling designs.

The firecracker industry employs large numbers of people. It is still a home industry. The machinery used is very crude but appears to answer the purpose well. The small paper tube is rolled between concentrically curved blocks of wood, the upper swinging as a pendulum above the lower, which is fixed. Fuses are inserted by children and the completed red crackers are then plaited together by hand and folded into packages of various sizes.

The glass factory at Changsha has excellent supplies of sand for its use and has taken up the production of additional lines. Previously it made only fancy glassware and glass tiling, but it has undertaken the importation of modern machinery for the manufacture of lamp chimneys and bottles.

COMMERCE OF THE PORT—INTRODUCTORY SUMMARY.

The table below gives the total imports and exports, foreign and Chinese, through the Maritime Customs at Changsha during the years 1905, 1913, and 1918.

Imports and exports.	1905	1913	1918
Imports of foreign goods:			
From foreign countries and Hongkong	$139,889	$1,087,961	$2,420,562
From Chinese ports	2,203,643	8,274,149	8,207,640
Total foreign imports	2,343,532	9,362,110	10,628,202
Reexports of foreign goods:			
To foreign countries and Hongkong	5	....	....
To Chinese ports	8,362	34,055	377,249
Total foreign reexports	8,367	34,055	377,249
Net total foreign imports	2,335,165	9,328,055	10,250,953
Imports of Chinese products	450,431	1,624,773	4,454,291
Reexports of Chinese products:			
To foreign countries and Hongkong	....	....	....
To Chinese ports	3,251	2,655	113,163
Total Chinese reexports	3,251	2,655	113,163
Net total Chinese imports	447,180	1,622,118	4,341,128
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	156	783	1,489
To Chinese ports	1,055,684	6,364,471	12,811,863
Total exports of local origin	1,055,840	6,365,254	12,813,352
Gross value of the trade of the port	3,849,803	17,352,137	27,895,845
Net value of the trade of the port	3,838,185	17,315,427	27,405,433

EXPORT TRADE.

Hunan Province is well situated for exporting its raw products, as has appeared from the discussion of its physical features and its communications. From this discussion it became apparent that nearly every part of the Province is accessible to the main waterways which connect the Province with the Yangtze River, making it possible to collect raw products, such as ore, hides, vegetable oils, etc., with little or no difficulty and by the inexpensive means of boats. The open ports of Changsha and Yochow have developed very slowly as independent export centers. This is due to their geographical proximity to the great collecting and distributing center of Hankow, located at the head of the deep-water navigation on the Yangtze River.

Hankow has been the collecting and distributing center for this part of interior China for such a long time that it will be extremely difficult to change well-established trade channels. It is the practice of Hankow and Shanghai exporters to send Chinese purchasing agents to places like Changsha, Siangtan, and Changteh to collect and buy for them the raw products that they export. Such products are generally re-sorted, refined, or at least repacked in Hankow or Shanghai before they are finally shipped. This is particularly true of hides, raw cotton, wood and other vegetable oils, and bristles. A table follows showing the principal goods exported from Changsha (excluding reexports) during the years 1905 (the year following the opening of Changsha to foreign trade), 1913, and 1918:

Articles.	1905		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Arsenic .... pounds..	....	....	505,733	$37,134	228,480	$31,884
Bamboo shoots .... do....	....	....	259,467	43,548	371,840	101,931
Beans:						
Green .... do....	396,133	$5,702	1,808,533	20,893	....	....
White and yellow .... do....			238,933	2,904	....	....
Broad and other kinds .... pounds..			47,492,933	689,063	183,680	5,438
Bristles .... do....	64,000	19,770	117,333	31,253	284,480	290,992
Cereals:						
Rice and paddy ...... do....	....	....	41,961,600	519,211	....	....
Wheat .... do....	....	....	1,910,667	29,290	....	34,589
Coal, Pinghsiang .... tons..	756	3,146	257,924	1,176,778	69,090	720,389
Coke .... do....	....	....	157,306	872,733	150,050	2,733,478
Cotton goods: Nankeens .... pounds..	172,133	40,773	8,933	3,219	4,267	2,495
Eggs, preserved and fresh .... number.	270,615	1,544	33,339	166	3,000	24
Feathers, duck, fowl, etc. .... pounds..	44,667	3,251	125,333	7,769	69,440	8,241
Fibers:						
Coir .... do....	....	....	420,133	15,135	360,640	38,644
Hemp .... do....	1,153,733	64,438	3,782,667	186,183	94,080	9,438
Firecrackers and fireworks .... pounds..	2,174,267	89,524	8,273,600	560,785	7,141,120	1,964,236
Grass cloth, all kinds ..... do....	155,600	43,529	187,733	177,665	647,360	1,157,358
Hair, human .... do....	....	1,947	308,800	108,542	147,840	36,738
Hides, buffalo and cow .. do....	411,733	47,001	1,262,267	152,726	647,360	127,832
Lard .... do....	577,600	29,438	22,667	1,782	4,480	505
Medicines	....	6,644	....	20,823	....	76,801
Metals:						
Antimony—						
Regulus and crude .... pounds..	7,734,933	112,027	20,204,800	465,068	35,304,640	2,607,738
Ore .... do....	....	....	9,338,533	100,283	716,800	17,147
Lead ore .... do....	....	....	7,945,333	129,466	3,902,080	117,400
Steel bars .... do....	....	....	152,933	(1)	387,520	60,626
Tin in slabs .... do....	....	....	396,000	72,952	91,840	54,138
Zinc ore .... do....	....	....	21,846,667	106,795	4,480	43
Oils:						
All kinds .... do....	54,400	2,411	....	....	....	....
Tea oil .... do....	....	....	35,733	2,170	280,000	27,729
Wood oil .... do....	....	....	2,191,867	126,728	20,160	1,809
Paper:						
First quality .... do....	160,133	4,607	33,600	5,692	116,480	16,587
Second quality ...... do....	....	....	5,348,933	233,112	5,120,640	463,710
Potash .... do....	....	....	309,600	8,622	2,240	100
Seeds:						
Lily flower or lotus .. do....	....	....	740,267	98,332	351,680	76,550
Sesame .... do....	....	....	1,043,867	31,607	....	....
Tea:						
Black .... do....	....	....	2,667	414	1,733	190
Leaf, unfired .... do....	6,533	818	106,800	9,421	56,133	3,212
Stalk .... do....	....	....	....	....	91,600	3,071
Tobacco, leaf and stalk .. do....	46,667	1,832	171,733	11,792	253,120	34,771
Umbrellas, paper ..... number..	....	....	73,780	7,250	7,000	2,747
All other articles	....	577,438	....	297,948	....	1,984,771
Total exports of local origin	....	1,055,840	....	6,365,254	....	12,813,352

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[1] Figures for value not available.

Most of the articles mentioned in the above table have been described in the earlier pages of this chapter on Hunan. As stated, the collection of articles is carried on by brokers and buyers sent into the country to purchase a hide here, a picul of rice there, and a basket of vegetable oil yonder, gradually increasing their stock until the quantity wanted is obtained. The demand for such products has brought about the usual temptation to adulterate, and it is for this reason that it has been necessary to establish factories and warehouses at Changsha and particularly at Hankow, for the purpose of re-sorting, refining, and repacking such raw products. As stated, the trade in raw products in Hunan is controlled by the Hankow merchants, who sell to the foreign buyers. This is particularly true of tea, which has its own special fleet of junks.

The greatest direct activity on the part of foreign buyers of Hunan's raw products is found among those purchasing the output of the mines of the Province. A number of Europeans and Japanese have established themselves at Changsha and have erected smelters for the purpose of collecting and refining ore of various kinds for export. The customs returns throw no light on the proportion of Hunan products destined for foreign countries, local merchants declaring them simply for Hankow or Shanghai as the case may be. The commissioner of customs in his Decennial Report (1902–1911) states, however, that, roughly speaking, the antimony goes to Belgium, France, and England—to which should now be added the United States—wood oil to the United States and Germany, and beans (mostly broad beans for fodder) to England and Italy.

The following table shows the articles invoiced at the Changsha consulate for exportation to the United States during the calendar years 1917 and 1918:

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value.
Antimony:				
Crude.....long tons..	250	$24,988	....	....
Regulus.....do....	3,292	671,716	1,300	$255,364
White oxides.....do....	90	9,779	100	15,207
Curios, miscellaneous.....	....	1,140	....	....
Household goods.....	....	....	....	460
Tea, Chinese black.....tons..	42	27,501	....	....
Tin, pig.....long tons..	15	11,240	....	....
Tungsten (concentrates).....do....	182	149,078	198	184,695
Total.....	....	895,442	....	455,726

IMPORT TRADE.

The value of imports of foreign goods into Hunan has grown steadily with exports since the opening of Hunan to foreign trade. Hardly a town in the Province but has foreign-made products of some kind or other displayed for sale in its shop windows. Changsha is becoming more and more a provincial distributing center for foreign imported products. This trade is likewise controlled generally by the Chinese merchants, except in the case of kerosene oil and sewing machines. Transportation facilities between the Province and the trade marts on the Yangtze River have changed very little during the years under review. The Province has no direct communication with foreign countries by steamer. The completion of the railway between Hankow and Changsha will mean steady traffic between the two cities, whereas in the past water-borne traffic has been interrupted (so far as steamer communication is concerned) during the three winter months of each year by low-water conditions. The general attitude toward foreign-made goods is a tolerant one, tempered by a desire to manufacture various foreign articles locally when possible. This is being done now on a small scale, but the output of the factories making articles fashioned after foreign models is sure to increase steadily in the future. Cost of production and quality of goods will determine whether these locally made products can seriously compete with the foreign imported article. The workshops of the Government mechanical engineering school are turning out modern officers' swords, bayonets, steam boilers capable of producing 30 horsepower (Lancashire type), steam pumps, smelting furnaces, files, steam engines, etc. Likewise a hardware manufacturer trained in the machine shops of Shanghai's shipbuilding works has installed a large machine shop on the river front at Changsha where he manufactures propellers and shafting, and turns out, to order, all kinds of castings of moderate size, smelting furnaces, screws, etc. There is a factory in the city capable of turning out 300 foreign-style umbrellas per day. The umbrellas are somewhat crudely made, with wooden sticks and cotton covers, but they are cheap and they find a ready market among the poorer classes of Chinese. There is another factory in the city that makes felt hats of the style known as the derby, and sun helmets that are excellent models of the well-known pith sun helmet produced in India. A flour mill has been installed in the north suburb of the city and is working night and day turning the wheat grown in the Province into flour for sale to the Hunanese.

The Hua Chang Smelting and Mining Works installed its smelter for the production of antimony regulus in 1908, and its success has been so phenomenal that the tendency is to do the smelting of metals at Changsha and export the refined product rather than the ore.

In spite of these facts, however, imports continue to grow steadily. With Changsha as a distributing center, goods can be taken to any part of the Province over its many interlacing waterways; but the shipper should not forget that this transportation is by small vessels or by porters and that transshipments will be frequent, both between the place of production and Changsha and between Changsha and the ultimate destination. Therefore goods should be securely packed in small, water-proof packages. Machinery should be taken apart and the parts shipped separately, for it has been found almost impossible to transport large, heavy machinery through a country of paddy fields and no roads. There follows a table giving a list of foreign goods imported (net imports) at the port of Changsha during the three years 1905, 1913, and 1918:

Articles.	1905		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Bags, all kinds.........pieces..	320,450	$27,503	1,081,193	$114,018	48,750	$8,104
Betel nuts............pounds..	104,933	2,528	92,267	2,374	338,240	14,639
Bêche de mer, all kinds..do....	94,400	15,790	142,667	21,309	105,280	29,800
Buttons, all kinds.......gross..	19,919	4,363	17,061	4,911	12,088	5,901
Cigarettes..........thousands..	....	3,546	30,009	47,555	123,496	390,585
Clocks and watches ..number..	3,129	4,178	21,335	20,383	4,095	7,833
Dyes, colors, and paints:						
Aniline..................	....	9,754	....	108,060	....	13.586
Indigo, artificial..pounds..	....	....	2,271,200	349,533	....	....
Electrical materials and fittings.	....	....	....	32,462	....	62,876
Flour................pounds..	110,000	2,470	62,800	1,353	....	977
Glass, window.........boxes..	3,608	9,613	11,067	28,515	3,559	38,423
Lamps and lampware..............	....	10,787	....	50,071	....	12,701
Machinery..................	....	7,111	....	247,811	....	14,334
Matches, wood, Japan...gross..	25,600	4,154	48,150	8,136	23,709	12,727
Metals:						
Copper ingots and slabs ....pounds..	3,855,200	619,496	3,325,733	651,485	7,949,760	2,489,266

Articles.	1905		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Metals—Continued.						
Iron and mild steel, new—						
All kinds.....pounds..	203,067	$3,799	....	....	....	....
Bars and nail rod.do...	9,067	1,302	1,233,600	$20,726	226,240	$16,189
Nails, wire, and rivets ....pounds..	....	....	618,933	14,772	403,200	31,966
Rails............do....	....	....	7,364,133	120,955	2,387,840	139,249
Sheets and plates.do....	....	....	205,067	3,874	67,200	7,898
Iron, galvanized: Sheets ....pounds..	33,200	1,032	536,133	19,405	35,840	5,151
Lead, in pigs and bars.do...	185,600	5,284	918,400	35,751	266,560	24,668
Spelter..............do....	164,533	8,288	....	....	133	16
Tin, in slabs.........do....	46,133	10,861	26,000	6,180	8,960	4,853
Needles............thousands..	33,145	4,622	187,130	27,321	64,293	70,949
Oils:						
Engine..American gallons..	....	....	59,091	13,067	63,235	26,256
Kerosene—						
American........do....	....	....	6,453,158	530,183	208,000	64,517
Borneo.........do....	....	....	1,636,130	179,157	1,030,000	288,766
Sumatra.........do....	....	....	139,670	15,294	1,127,200	336,486
Pepper:						
All kinds.........pounds..	181,200	21,754	....	....	....	....
Black...............do....	....	....	443,200	42,978	309,120	56,607
White...............do....	....	....	61,867	9,321	62,720	14,144
Piece goods, yarns, and thread:						
Shirtings, gray, plain—						
American and English ....pieces..	104,043	195,971	....	....	....	....
American ....do....	....	....	5,440	13,668	640	5,468
English..........do....	....	....	203,269	465,516	40,765	231,833
Japanese.........do....	....	....	....	....	33,059	186,461
Sheetings, gray, plain—						
American and English ....pieces..	18,150	40,193	....	....	....	....
American ....do....	....	....	36,540	85,468	840	4,312
English..........do....	....	....	7,520	20,244	50	378
Shirtings, white, plain ....pieces....	99,976	271,724	300,140	916,094	88,463	613,987
White irishes ....do....	....	....	818	3,087	....	....
Drills—						
American........do....	13,245	32,616	3,740	10,958	....	....
English..........do....			5,811	16,459	2,844	33,056
Japanese.........do....			45,795	125,845	11,083	61,152
Jeans—						
American and English..........pieces..	1,800	3,873	....	....	....	....
American........do....	....	....	160	504	440	2,085
Dutch...........do....	....	....	1,080	2,417	....	....
English..........do....	....	....	119,485	269,759	8,522	51,288
Japanese.........do....	....	....	....	....	40,529	206,925
T-cloths............do....	280	490	470	754	100	525
Printed chintzes, plain prints, and printed shirtings.........pieces..	8,157	13,217	7,115	13,074	5,113	24,826
Cotton italians—						
Plain, fast black.do....	78,544	261,731	62,037	209,678	11,410	92,426
Colored..........do....	....	....	41,388	109,976	5,562	36,513
Figured..........do....	....	....	25,747	78,564	420	2,856
Cotton venetians—						
Plain, fast black.do....	....	....	7,443	41,348	2,010	25,010
Colored..........do....	....	....	11,320	66,605	14,196	112,233
Figured..........do....	....	....	1,961	13,328	242	2,676
Cotton lastings—						
Plain, fast black.do...	....	....	819	2,499	960	6,483
Figured..........do....	....	....	7,732	17,384	1,875	16,700
Dyed shirtings and sheetings, plain........pieces..	2,446	7,231	1,041	3,085	188	1,384
Dyed cambrics, lawns, and muslins..........pieces..	1,166	985	29,437	35,247	1,400	9,644
Turkey-red cambrics and shirtings.........pieces..	9,186	14,186	17,267	24,987	10,011	48,764
Cotton Spanish stripes, pieces..................	1,784	4,993	2,024	5,984	75	617
Cotton flannels.....pieces..	6,503	17,300	45,987	133,882	3,134	17,594
Velvets and velveteens, yards..................	87,279	14,746	322,957	68,452	42,111	20,095
Cotton blankets....pieces..	4,859	1,448	30,149	9,844	14,171	17,413
Handkerchiefs......dozen..	5,592	1,397	22,081	4,514	18,358	12,747
Towels.............do....	7,083	2,611	420	107	21,904	20,790

Articles.	1905		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Piece goods, yarns, and thread—Continued.						
Cotton yarns—						
English.......pounds..	591,200	$84,617	33,200	$7,449	....	....
Indian..........do....			28,000	4.196	8,960	$2,800
Japanese.........do....			7,952,933	1,085,505	2,701,440	1,151,021
Cotton thread, in balls, pounds........	....	....	38,667	17,854	6,133	5,479
Woolen and cotton mixtures—						
Union and poncho cloths.........yards..	9,145	3,005	172,967	61,870	....	....
Union Italian cloth, plain and figured, pieces.............	660	4,553	....	....	....	222
Woolen goods—						
Camlets, English, pieces.............	750	6,899	1,826	18,408	56	1,245
Cloth, broad, medium, habit, and Russian, yards.............	29,258	31,143	67,211	70,162	233	306
Lastings, plain and figured.......pieces..	500	3,741	988	8,821	....	....
Long ells.........do....	441	1,754	410	1,778	2	25
Spanish stripes..yards.	13,956	7,772	21,149	8,491	....	....
Foreign miscellaneous piece goods: Canvas and cotton duck.........yards..	....	....	35,407	6,615	11,800	3,967
Sandal wood..........pounds..	668,400	33,667	1.200,400	64,214	165,760	22,319
Seaweed.................do....	2,346,267	32,186	5,457,067	75,815	3,682,560	84,538
Soda.....................do....	....	....	1,063,067	12,113	2,625,120	140,281
Sugar:						
Brown...............do....	688,267	15,073	2,997,600	66,305	2,365,440	87,199
White...............do....	1,793,867	50,090	3,730,267	104,365	650,560	38,527
Refined.............do....	3.179,867	95,753	16,238,267	494,312	11,054,400	852,595
Candy...............do....	622,800	25,062	1,550,533	56,199	837,700	66,359
Timber:						
Hardwood......cubic feet..	....	....	42,719	10,197	94	52
Softwood......square feet..	....	....	467,884	81,632	....	....
Umbrellas............number..	32,454	11,416	176,668	54,469	68,278	61,848
All other articles...............	....	265.487	....	1,620,974	....	1,738,260
Total.....................	....	2,335,165	....	9,328,055	....	10,250,953

SHIPPING FACILITIES FOR TRADE WITH UNITED STATES.

Changsha and Yochow, the two treaty ports in the Province of Hunan, are interior ports. Changsha is situated in the interior of the Province on the Siang River and is accessible from Hankow by steamers drawing between 8 and 12 feet, depending on the rise and fall of the water in the river. Yochow is situated on the passageway that connects the Tung Ting Lake and the Siang River with the Yangtze River, and is accessible to boats drawing up to 12 or 15 feet. The river route has been, until recently, the only available practical route for trade between Changsha and foreign countries. The following companies are engaged in the transportation of merchandise: Butterfield & Swire, agents for the China Navigation Co., two steamers; Jardine, Matheson & Co. (Ltd.), managers for Indo-China Steam Navigation Co., one steamer; Nisshin Kisen Kaisha, two steamers; China Steamship Co., one steamer (Changsha-Shanghai direct). With the exception of the China Steamship Co., a Chinese concern, the ships of all these shipping companies ply simply between Changsha and Hankow, where goods are transshipped to Shanghai. In addition to these companies there are the Standard Oil Co. of New York, which maintains vessels for the transportation of kerosene and for charter, and the Asiatic Petroleum Co., which also maintains ships for the transportation of its own product. Both Changsha and Yochow are now connected with the port of Hankow on the Yangtze by a railway that furnishes an alternative route to the steamer route. The railway route is useful during the winter months when the water of the river is generally too low to permit steamer navigation.

FACILITIES FOR TRAVEL.

There are as yet no hotels under foreign management in Changsha or Yochow. Changsha has a very large hotel under Chinese management that can accommodate foreign guests. Its rates are similar to those of the large foreign hotels at Hankow or Shanghai, averaging $8 Mex. per day. The best time of the year for visiting Changsha and Hunan is in the fall during the months of October and November.

TRADE ORGANIZATIONS IN DISTRICT.

There is a Chinese Chamber of Commerce at Changsha, and so-called chambers of commerce are established at a large number of the more important district cities throughout the Province. The smaller chambers of the district cities are, in name, more or less subordinate to the general chamber of commerce at Changsha. The most important function of the chamber appears to be its work of arbitrating claims. Outside of the chamber of commerce, but closely related to it, are the trade and provincial guilds, such as the Kiangsi guild, the glass dealers' guild, the bankers' guild. These guilds are organized generally as mutual-benefit societies within the trade represented. The members contribute funds, which are administered by the guild officers and committees for the use of members, such as for funeral expenses and small loans. The guild operates as a whole for the protection of its particular trade. When the chamber of commerce decides upon some move that will affect the business men in general, it leaves to the trade guilds the details that are to be worked out by the various trades represented. The provincial guild is generally organized for the protection of natives of Provinces, for the transportation of deceased members to their native homes for burial, and for the purpose of aiding fellow-provincials who find themselves in straitened circumstances. They are charitable or mutual-aid societies rather than trade organizations, though they do and can exercise some influence on trade.

AMERICAN INTERESTS.

Hunan was perhaps the last of the 18 Provinces of China to admit foreign residents within its borders. The first Americans to establish themselves within the Province were missionary workers. They entered it in 1898. Commercial interests did not come in until later, when the two treaty ports of Yochow and Changsha were opened to trade.

MISSIONARY INTERESTS.

The work carried on by the American missions in Hunan is greater in extent than that of the missionary societies of any other nationality. It is maintained by the following missions: American Presbyterian Church Mission, Christian and Missionary Alliance, American

Protestant Episcopal Church Mission, United Evangelical Church Mission, Reformed Church in the United States, Seventh Day Adventist Church Mission, Evangelical Association, Faith Orphanage, American Bible Society, the Bible House of Los Angeles, and the Yale Mission.

The American Presbyterian Church Mission maintains head stations at five cities in Hunan, namely, Changsha, Changteh, Chenchow, Hengchow, and Siangtan. At the end of 1914 it had 54 American missionaries in the field and employed a total of 129 Chinese helpers, including unordained preachers, teachers, etc. The published reports show that at the end of 1914 the mission had 4 organized churches, 1,060 communicants, an average church attendance of 1,235, and 51 Sunday schools with a membership of 1,349. The mission, in addition to its evangelistic work, maintains 38 primary and intermediate schools, with 617 boys and 287 girls as students, and 3 high schools, with 68 boys, while 17 theological students and 3 medical students were also being educated. The total number of pupils in all its schools at the end of 1914 was: Boys, 685; girls, 273. The mission maintains 5 hospitals, 2 at Changteh, 1 at Chenchow, 1 at Hengchow, and 1 at Siangtan. The following table gives a summary of the mission's medical work:

Towns.	Number of hospitals.	Number of beds.	Number of in-patients.	Number of dispensaries.	Individual out-patients.	Out-patient visits.
Changteh	2	57	520	2	5,132	11,500
Chenchow	1	60	214	1	3,163	5,851
Hengchow	1	40	295	1	2,400	6,130
Siangtan	1	33	260	2	4,126	11,519
Total	5	190	1,289	6	14,821	35,000

The Christian and Missionary Alliance maintains a branch of its work in Hunan, divided between the stations of Changsha, Changteh, and Hansheo. The work of this society is chiefly evangelistic, though it maintains a number of churches and primary schools for boys and girls. The staff employed consists of 9 missionaries, 5 Chinese evangelists, 2 school-teachers, and 4 "colporteurs," a total of 20 workers. The estimated membership is given as 174.

The work of the American Protestant Episcopal Church Mission in Hunan is divided between that mission and the Church of England Mission, both missions working under the Chinese name of Chung Hua Sheng Kung Hui. The American section of this work belongs to the diocese of Hankow. It covers all that part of the Province north of the twenty-eighth parallel. The territory south of the twenty-eighth parallel belongs to the diocese of Siangtan. The American diocese conducts work in two places in Hunan, Changsha, and Changteh. At Changsha the society has a church with about 190 baptized members, including 50 children. It also has about 50 catechumens, or those preparing for baptism. The society also maintains the following schools: Boys' boarding school, upper primary, 37 pupils; mixed day school, lower primary, 60 pupils; boys' day school, lower primary, 36 pupils; girls' day school, lower and upper primary, 22 pupils; total number of pupils, 155. Besides ordinary parish work a good deal of street chapel preaching and all Bible-class work is done by the resident missionaries. One American missionary and his wife are stationed at Changsha. At Changteh the mission conducts only street chapel work.

The United Evangelical Church Mission operates in the eastern part of Hunan and includes Changsha, Liling, Siangtan, Yuhsien, and Chaling, at each of which places the society maintains mission stations. The society maintains 24 missionaries. The chief work of the mission is evangelistic. School work is carried on in two boarding schools as well as day schools at all of the stations and at a few of the out-stations. The number of pupils in boarding schools varies from 60 to 80 both in the boys' school at Liling and in the girls' school at Changsha. The mission is also interested in two union schools at Changsha to which it sends students. These schools are the Hunan Union Girls' High School and the Union Theological Seminary. The medical work of the mission is centered at Liling, where a physician resides and a hospital has been recently erected. Besides the missionaries mentioned above, the mission employs evangelists, colporteurs, school-teachers, and other Chinese helpers.

The Reformed Church in the United States maintains two stations in Hunan Province, one at Yochow and the other at Shenchow in western Hunan. The work is divided into evangelistic, medical, and educational activities. In Yochow the mission conducts the Lakeside Schools, with an attendance of 120 boys. At Shenchow it maintains the Eastview Schools, with an attendance of 78 boys. Girls' schools are conducted at both Yochow and Shenchow, with an attendance of 39 at the latter and 20 at the former. Two hospitals are maintained, one at Yochow and one at Shenchow. There are 19 missionaries, including wives, stationed in the field.

The Seventh Day Adventist Mission maintains a station in charge of a foreign missionary at Changsha. The work is wholly evangelistic. The mission employs 35 workers, 25 of whom are doing evangelistic work, while the remaining 10 are engaged in selling literature of a religious nature. All of these are Chinese. The mission numbers 366 members and an additional 150 who have not yet been baptized. The work is carried on at 18 places in the Province.

The Evangelical Association is centered at the city of Shenchow in western Hunan. There are eight missionaries maintained there. Their work is evangelistic, educational, and industrial. Evangelistic work is carried on with the assistance of a number of Chinese and includes three out-stations in addition to the city of Shenchow. The educational work includes a lower and a higher primary school for boys, a lower primary school for girls, and a school for the religious training of evangelists. Industrially, needle work is taught to women, and the mission maintains a printing press for the printing of books, tracts, and other literature.

At Changsha an independent organization, known as the Faith Orphanage, and supported by the funds received from churches in the United States, has been engaged for some years in caring for destitute and parentless children. The orphanage is in the care of an American family. The girls are taught needle work and the boys are instructed in useful trades, and all are required to attend the school of the orphanage. The orphanage has a printing press that is used for the printing of religious tracts.

The American Bible Society maintains an agency at Changsha with one American in charge. The agency has been established there since 1910. It is engaged solely in the distribution of Bibles, Testaments, and Scripture portions throughout the Province. The American in charge is assisted in his work by a number of Chinese colporteurs and other Chinese employees.

An interesting work concerns itself with the annual pilgrimage of Chinese to the sacred mountain of Nanyueh, situated not far from Hengshan and Hengchow on the Siang River. To this mountain in the fall of each year there wends its way a great body of pilgrims, made up of all classes of Chinese intent on visiting the mountain for the purpose of accomplishing some penance and making sacrifice to the spirit of the mountain to secure its aid in their work. The Bible House of Los Angeles has provided funds, tracts, and religious posters wherein are printed portions of scripture in the Chinese language, and a prominent member of the Wesleyan Mission supervises the work of distributing these tracts and portions of scripture to the pilgrims who visit the mountain. The work is carried on only during the season of the pilgrimage, which continues for about a month in the early fall of each year.

The Yale Mission began its work at Changsha in 1904. Its work is principally educational and is maintained with the help and assistance of the alumni of Yale University. Its aim has been the establishment of a college of arts and sciences, with provision for normal training in the college or a separate department. A second aim was to devise a scheme by which the Yale medical staff might have a part in medical education of high grade. The college has moved into its new buildings located on high ground just north of the city of Changsha, where a dormitory, chapel, temporary recitation halls, and faculty residences have been erected. At the end of 1918 an outdoor gymnasium was begun on the college campus. Other buildings are planned for the year 1919, including a dormitory for the college of medicine and a scientific laboratory.

The medical school has been running since 1915. A hospital, which is the finest in this part of China from the point of view of equipment and size, has been erected near the campus of the college and is to form the center of the medical educational work that the Mission is now undertaking with the assistance of the gentry of Hunan. The assistance of the Hunan gentry has been secured as the result of an agreement whereby the Hunan provincial government undertook to give a grant in aid, to be paid through an association of Hunan gentry who should have joint control with Yale of the medical and nursing schools. Under this agreement the Yale Mission is to provide the foreign staff and hospital, and the Hunan gentry by means of the subsidy are to provide the running expenses of the medical and nursing schools and hospital and the necessary buildings for the schools. The China Medical Commission of the Rockefeller Foundation has assisted this work by providing a number of the doctors who are to serve on the medical and teaching staff of the hospital and medical school.

The staff of the Mission includes 12 men in the collegiate department and six in the medical department, including one woman doctor and one woman nurse in charge of the nurses' training schools. Buildings have been erected under the supervision of an American architect. The architectural features represent a concession to Chinese ideas, the buildings having curved roofs and massive walls. The hospital has been equipped with American hospital equipment, beds, instruments, etc., and has its own electric power plant.

It will be seen from the foregoing account that the American missionary interests in Hunan are large and progressive, and have involved the expenditure of large sums of money. The value of the educational work accomplished by these bodies is acknowledged by all.

Among other missionary organizations in the Province one may mention first, the Liebenzell Mission, a part of the China Inland Mission. Its missionaries are German; they maintain stations in the central and western part of the Province and have, besides a church at Changsha, a school for the blind. The Catholic Mission has been established in the Province for a great number of years. It is stated that during the reign of Kang Hsi (1662 to 1723) almost every town in Hunan possessed a Catholic Church, all of which were later destroyed or converted into pagodas, examples of which are to be seen at Changteh and Siangtan. Perhaps the first foreigner to enter the city of Changsha was of this mission. It is recorded that Bishop Jean de Frioria was brought to Changsha in 1816 for execution for having propagated the Christian religion and faith, having entered China without permission. Other missions are the English Wesleyan, the Norwegian, and the Finnish. The Norwegian Mission maintains a hospital, church, and school at Changsha and a school at Yiyang. The Wesleyan Mission employs about 34 missionaries in the field in Hunan and maintains seven stations. Their work is chiefly evangelistic, but educational institutions are maintained. The Finland Missionary Society employs 18 foreign workers who conduct churches and schools. Their work is limited generally to that part of the Province north of the Yuan River.

The American missionary interests would seem to be conducted on a much larger scale that any other missionary interests in the Province. However, these interests have divided up the Province more or less evenly among themselves so that their interests do not conflict. Some of the Protestant missions have joined in conducting at Changsha a Union Theological Seminary for the training of preachers. Some of the Protestant missions also have joined, as stated above, in the conduct of a high school for girls at Changsha.

COMMERCIAL INTERESTS.

The opening of Yochow to foreign trade in 1898 opened the Province to foreign commercial interests. In 1904 Changsha was opened to foreign trade and the Standard Oil Co., the first of the large American firms to establish itself in Hunan, started an agency there. Since then its business has increased yearly. The company now maintains at Changsha a foreign staff of six men, with two more stationed in the district commanded by Changteh. Large storage tanks are maintained at Changsha into which oil is stored from the distributing tanks at Hankow. A motor barge of 140 tons burden is maintained for the carriage of kerosene to the various agencies of the company located on the waterways of Hunan. The Singer Sewing Machine Co. also maintains an agency in Changsha in charge of one foreigner, who has supervision over the work of the Changsha agency and of the branch selling offices established at various cities in the Province. These two firms were, until the last few years, the only American firms actively engaged in the selling of American products in Hunan. One or two of the British or German firms established at Changsha have held agencies for American manufacturers and sold quantities of American goods. In the beginning of the year 1916 an important American import and export firm, with head office at Shanghai, established an agency at Changsha with an American in charge. They are the first general agents of American nationality dealing generally in products of American manufacture to establish themselves in Changsha. They are selling electrical supplies and equipment, pumps, mining machinery, hoisting and conveying machinery, dynamite, internal combustion engines, structural steel, chemicals, laboratory supplies, etc., and in spite of disturbed conditions have made an excellent beginning.

Compared with other nationalities, American business men appear to have been slow to realize the commercial importance of the Province of Hunan. Japanese and British shipping interests have established river steamers connecting Changsha with Hankow. British, German, Japanese, and Belgian firms have long realized the importance of the mineral resources of Hunan and have had agents in the Province engaged in assisting Chinese mining interests with capital, selling them machinery, and generally pushing the trade of their respective nationals. Until the outbreak of the war the German firms established at Changsha were perhaps the most energetic, buying the raw products of the Province, and, in turn, selling German machinery. American manufacturers will find a very promising field among the mining interests of the Province for the sale of mining machinery of all kinds. The cities of the Province are waking up to the advantages of electric lights and telephone systems and are ready to purchase from the firm making the most attractive offer from the point of view of both cheapness and quality.

GENERAL TRADE SUGGESTIONS.

With the natural resources of the Province almost untouched, a tremendous amount of expansion is yet possible in the import trade of Hunan.

The American merchant, in order to enjoy a portion of this trade, must do his share to raise the purchasing power of the people of Hunan. In order to do this he must offer a market for the raw products of the Province. There must be an exchange of commodities. The American must do his part toward furnishing capital for developing industries and encouraging the opening of mines and the exploitation of the natural resources of the Province. The war in Europe gave a tremendous impetus to mining interests in Hunan. A great demand was created for antimony, one of the chief (and best developed) mining resources. The result was that many mines were opened, employment was afforded to large numbers of people, and the standard of living in the immediate neighborhood of the mines began to rise at once. Prices rose at the same time. There was more money and the mining districts began to enjoy increased prosperity. This demonstrates the effect of raising the producing power of the people, for it stimulated production and encouraged the use of foreign and modern methods. The miners discovered that when antimony values fell below a certain point, it did not pay to work some of their mines using old methods of production. If they can be shown that by the use of modern labor-saving devices they can keep their mines open and working at a profit in spite of fluctuations in the selling price, other conditions having been taken into consideration, a further impetus to prosperity will be given and every one will profit thereby—not only the Hunan resident but the American maker of goods for sale.

METHODS IN PIECE-GOODS TRADE.

That there is an excellent and growing market in Hunan for goods of certain kinds that can be purchased in the United States as well as anywhere else is evident from a study of the import figures. Cotton piece goods form an important item in this trade. At present they come for the most part from England. The trade, however, is not direct. The piece-goods business centers at Shanghai and Hankow, but principally at Shanghai, where the piece-goods auctions are held. It is to these auctions that the Chinese dealers in foreign piece goods repair for the purpose of replenishing their stocks.

There is some question as to whether these auctions can be disregarded by the foreign manufacturer, and while it is the opinion of some that increased business could be done by direct dealing with the Chinese purchaser in Hunan, the writer believes, after examining into the circumstances surrounding the business at Changsha, that the piece-goods trade is too firmly centered at Shanghai to allow a shift of much of the trade to the interior, until a more suitable currency is adopted and better banking facilities are afforded the business man. What are the steps taken by the Changsha dealer in piece goods when he desires to replenish his stocks? He writes a letter to his purchasing agent in Shanghai, who is a member of a group of purchasing agents known to the Shanghai piece-goods trade as the Hunan "Pang K'o," or Hunan "guests," who frequent together one of the many hotels that cater to the traveling merchants temporarily residing at Shanghai. Sometimes this purchasing agent is a personal representative of the Changsha dealer—very probably a relative of the manager or head of the Changsha firm. Most often, however, he is a professional purchasing agent or broker who buys for two or more Hunan dealers. If the Hunan firm has no deposit with this purchasing agent, it makes remittances with its order, in which it asks the purchasing agent to secure certain specific piece goods for it from the dealers at Shanghai. These remittances are made by Chinese bank draft on Hankow or Shanghai, according to exchange conditions in the two centers.

Now this purchasing agent living in Shanghai receives visits each day from numerous market "shroffs" (clerks) who are in the employ of the larger piece-goods "hongs" (firms) and also from independent piece-goods brokers, who carry with them samples and price lists but are not attached to any particular hong or dealer. The purchasing agent has his choice of buying from the market shroff, who will take the order to his employer, or from the piece-goods hong, or of entrusting his order to one of the independent piece-goods brokers who will peddle it to all of the piece-goods hongs forming his particular clientele. Through one of these channels the purchasing agent will get in touch with a piece-goods hong stocking either all or part of the goods he wants, and he will make his purchase, paying cash. He may not secure the whole order from one hong but may distribute the order among several hongs, either because of differences in price asked or because of lack of stocks.

Now the piece-goods hong is a large Chinese firm that deals directly with the foreign import merchant at Shanghai. It keeps stocks of standard goods on hand to meet orders. The procedure of the representative of the piece-goods hong is to go to the piece-goods auction or to the foreign import merchant to order his cargo. In the latter case the foreign import merchant requires him to sign a contract whereby he agrees to take a fixed quantity of cargo at a fixed gold price. The piece-goods hong in signing such a contract must take into consideration the rate of exchange between gold and silver, with the possibility of a drop in the value of silver before it can obtain and dispose of its cargo, because its business with the up-country merchant is done on a silver basis. It must pay the foreign import merchant in sterling or its equivalent in silver, and naturally if the gold value of silver falls before it can get its cargo paid for or disposed of, it suffers a loss proportionate to the variation in exchange. In other words, the Chinese piece-goods hong bears the risk resulting from exchange fluctuations. The up-country merchant takes no risk whatever so far as exchange is concerned. The foreign import merchant protects himself against risk by his contract with the piece-goods hong.

In other words the piece-goods hong merchant at Shanghai renders the same service to the trade that is rendered by the so-called export house to the European or American manufacturer. He is skilled in foreign exchange and he knows and is well known in the market. The up-country merchant pays him for his expert information and does so gladly in order to avoid the risk and trouble attendant upon a fluctuating exchange. It is for this reason that the writer does not consider it likely that the piece-goods hong merchant, the piece-goods auction, the piece-goods broker, and the buyer's representative of the up-country dealer, all located at Shanghai, can be done away with as yet. One German firm at Changsha was in the habit of keeping stocks of piece goods at Changsha, but Chinese merchants at Changsha say that they prefer to make their purchases through the old channels at Shanghai rather than go to the local market, whose stocks might be short.

COURSE TO BE PURSUED BY AMERICAN MANUFACTURERS.

The above account also applies to other products besides piece goods, and to the American manufacturer or merchant who contemplates entering the Hunan market the writer would give the following advice:

First. Decide definitely whether you want to enter the Hunan market. Ask yourself whether you want to sell your product in Hunan.

Second. Do not depend on catalogues with discount quotations. They mean nothing to the Chinese buyer who can not read English or any other foreign languegc and who finds it at present easier to go to the foreign import house at Shanghai to obtain his goods than to take the trouble of examining catalogues and entering into correspondence with foreign merchants about some product that he may or may not be able to sell.

Third. Send a personal representative to Hunan with stocks and samples. The treaties permit him to travel throughout the Province, and he can demonstrate his wares at any place. The missions expand their work by street preachers, who, indeed, are the pioneers of the missions. Where are the street preachers of trade? A firm dealing in cigarettes in China makes it a practice to send its men up and down the Province and distribute free samples and advertising matter and take orders and establish agencies. The American merchant and business man must follow a similar procedure and get into personal touch with the Chinese dealers, sending out his street preachers and demonstrators. If he wants the thing done well he must do it himself. He can not expect to win a market for his goods unless he takes a personal interest in the struggle. He should not depend on someone else to do the work for him. He must not expect an agent of European nationality to push American-made products, which probably compete with European-made articles that such an agent already handles.

Fourth. If the American merchant finds that the Hunan market furnishes no present demand for his product, he should inquire as to whether he may not create a future demand. He should study the market and endeavor to manufacture an article that the market will buy. He should educate the market so that he can bring about a demand for his product. To this end let the manufacturer of mining machinery install a complete set of mining machinery in a mining school located in Hunan. The mining engineers educated at such a school, becoming familiar with the machinery of the American manufacturer, will go forth to the mines and specify for the machinery to which to which they have become accustomed. Send a demonstrator into the mines to show the miner how the production of his mine may be increased. Distribute motion-picture films illustrating processes of manufacture prevailing in the preserved-food trade, the uses to which machinery of various kinds can be put, and the work that it can accomplish. Examine personally the native methods of treating the rice and other crops, and discover whether some simple machine that will find its place in farm economy can not be made for the market. It did not take the German merchant long to demonstrate to the Chinese the usefulness of his aniline dyes. A sewing machine company that does a large business in China maintains schools to teach men and women the use of the sewing machine.

Fifth. Advertise by means of Chinese newspapers, lithographed calendars, fans, posters, etc. Where are the cotton baseball caps that every boy in an American country town rejoices in the possession of each spring—each cap highly colored and bearing the advertisement of some enterprising merchant? Such caps could be distributed among coolies and children from one end of Hunan to the other. At the beginning of a recent summer, when the minds of the Chinese turned naturally to fans, the city of Changsha was flooded with small bamboo and paper Japanese fans bearing on one face an illustrated poem in the Chinese language and on the reverse a picture of the factory in which a well-known Japanese proprietary medicine is made, with a list of its uses, in Chinese. These fans were in the hands of everyone throughout the city in a short time. One foreign firm at Changsha advertised its wares by distributing coats among the public jinrikisha coolies, with the trade name of the firm in large picturesque Chinese characters in the middle of the coolie's back, just where it would meet the eyes of the fare. The jinrikisha and chair coolies at Changsha wear large, round, dome-shaped hats to shelter them from the rain. These hats are made of oiled paper on bamboo frames. They are cheap and, with advertising matter painted on their broad, sloping tops, would make excellent advertising mediums. There are a thousand and one ways of bringing one's wares to the attention of the people of Hunan. One Sheffield cutlery firm presents to Chinese dealers who handle its goods attractive steel pocketknives with the Chinese "chop," or trade name, of the Chinese agents cut into the blades. Here not only are the wares and workmanship of the manufacturer advertised, but also the Chinese agent or dealer selling them, who takes pride in presenting such a knife to a prospective customer. The Chinese language only should be used in advertising, except where one or two English words belonging to the trade-mark or name can be used as essential parts of the advertisement.

Sixth. International competition is tremendously keen among the foreign import merchants. The German merchants court the trade by giving long credit terms. The Japanese have established a merchants' school at Shanghai in which they educate their own men for the Chinese market, encouraging them to make journeys of investigation throughout the country. British bankers lend money on Chinese industrial concessions, and their engineers, employed to carry out construction work called for by such concessions, specify according to British standards. Into this competition the American merchant must enter, and he must adjust his business methods to meet those of his European competitors.

On the other hand, the Chinese customer knows little or nothing of this competition, except that he profits by the results, buying where he can get the best goods for the least money. If you ask a Chinese merchant where his stock comes from, nine times out of ten he can not tell you without looking at the article in question, except in one or two cases where the supply comes from one country only. He knows quality, prices, and "chops" or trade-marks that have become guaranties of the character of the goods. He does not ask whether the "chop" or trade-mark is British, Russian, or American. It follows, therefore, that if the American merchant's wares meet the requirements of the trade and compare favorably with the prices charged by others he can sell his goods in Hunan.

Assuming that the American manufacturer or merchant, after taking the above-mentioned conditions into consideration, has determined to enter the market in Hunan, the following suggestions are offered. He has already discovered that the Chinese merchant of Hunan is unable to engage in direct trade relations with the United States, and he has probably decided to establish his own agency in China. To this end he should either grant an exclusive agency to some firm in Shanghai, sending out an experienced sales agent to cooperate with the said firm, traveling about the country for purposes of demonstrations, etc., or he should establish his independent agency, preferably in Shanghai.

VITAL FACTORS IN FAR EASTERN TRADE.

In the latter case he must take into account the following factors that enter universally into the trade of the Far East, where there are no mercantile agencies to furnish information as to the standing of Chinese firms and where problems of exchange add to the risk of import and export trade. Excluding the foreign banks, these factors are:

(1) The comprador, who is the Chinese member of the agency. The comprador is the "right-hand man" of the agent. He takes the place of Dun and Bradstreet. He knows the Chinese with whom business is done and, by his contract with the agent and his money deposit, guarantees all transactions between the agent and such Chinese firms, making himself personally liable for any losses incurred by the agent as a result of the failure of a Chinese firm to fulfill its share of a deal.

(2) The Chinese foreign-goods dealers of Shanghai, who sell to the up-country traders. Sometimes the agent's comprador may establish himself as a foreign-goods dealer. Generally, however, these are independent agents, each with his own staff of market shroffs or clerks. These foreign-goods dealers, as already stated, bear the risks, and they are the intermediaries between the foreign sales agent, whose business is done on a gold basis, and the Chinese up-country merchant, whose profits are calculated in silver.

(3) A form of advertising that is almost indispensable in the East and that should not be forgotten by the American manufacturer establishing an agency in China. This consists in entertaining. Along with entertainments go gifts. A great deal of profitable business finds its beginning in the informal and friendly intercourse that centers about the banquet table. In a European or an American city, the merchant has his club, to which he goes and meets fellow business men as on a neutral ground apart from their business world. There are no such clubs in China where Chinese and foreign business men can meet. Their place is taken by the banquet table, and the foreign agent should be given a liberal entertainment allowance and encouraged to meet Chinese business men on the common ground of hospitality. Under such circumstances personal prejudices and misunderstandings disappear and mutual friendships are encouraged. In the conversation that goes about, opportunities are discovered for financing and undertaking business enterprises mutually profitable. These methods are followed with success by the European competitors of the American manufacturers in these markets.

As a final word on this subject, the writer would urge the American manufacturer to encourage his agent to acquire a knowledge of the Chinese language. It is a means of breaking down the wall that the foreigner finds between himself and the Chinese with whom he would like to have friendly intercourse. To obtain a fair acquaintance with the spoken language of the country is not a difficult task. Many foreign firms already engaged in business in China encourage their young men to study the language by giving bonuses on the passage of examinations.

CHEFOO CONSULAR DISTRICT.

By Consul Lester Maynard.

LOCATION AND AREA.

The Chefoo consular district formerly included all that part of Shantung Province south of the Yellow River with the exception of Kiaochow, and comprised the large peninsula extending from the northern part of China into the Yellow Sea with the Gulf of Chihli for the northern boundary. The present report will be based on the original extent of the district before the establishment of the United States consulate at Tsinan. The district was included between 35° and 38° north latitude and 115° to 123° east longitude; in latitude it corresponds, therefore, to the central portion of California, although it is very different in climate, being more like the State of Maine in that respect. The original land boundaries were Chihli Province on the west and Honan and Kiangsu Provinces on the south. The establishment of the consulate at Tsinan reduced the Chefoo district to the small mountainous area at the eastern end of Shantung, which may be briefly described as including the 12 eastern hsien (counties) of the 107 hsien that form the entire Province.

The area of Shantung Province is 55,984 square miles, which is about the area of the State of Iowa, but allowance must be made for the fact that that part of Shantung Province which is north of the Yellow River is within the Tientsin consular district and the area of Kiaochow is within the Tsingtau consular district.

POPULATION.

The population of Shantung Province, which is the most densely populated Province in China, is estimated to be about 30,000,000, making the density about 525 per square mile; the total may be compared to the combined populations of the States of New York, Pennsylvania, Illinois, Ohio, Texas, and Massachusetts according to the 1910 census. The density of population per square mile is greater than that of the State of Rhode Island, which is the most densely populated State in the United States. It should be borne in mind, however, that there is no comparison between the products and industries and the scale of living of the two peoples. Shantung Province is more densely populated in the west, being relatively thinly populated in the mountainous region and having considerable areas that are unsuitable for human habitation—mainly along the lower reaches of the Yellow River, where the country is subject to inundation.

PHYSICAL FEATURES.

The southern and southwestern parts of Shantung Province are mountainous, with a watershed bisecting that part of the Province running southeast to northwest, and with numerous small streams flowing north and south, those flowing north being the more important.

The extreme western part of the Province is the valley of the Yellow River, being flat and low and cut up by many streams. This area, as stated, is subject to floods.

The central part of the northern section of the Province is a barren plain, also subject to inundation, and running southeast from this region, from the Gulf of Chihli to the Yellow Sea, is a valley of comparatively low land. East of this valley and including the entire peninsula the country is mountainous and rugged. There is almost a total absence of forests in the Province.

CLIMATE.

The climate of Shantung Province might be compared with that of the State of Maine. The winters are long and severely cold and dry and the summers short and not excessively hot or moist. The points along the coast are cooler in summer and more exposed to the severe winter storms. The average rainfall at Chefoo, which is on the northern coast of Shantung Province, is about 26 inches per annum and is confined mainly to the months of June, July, and August. The heaviest snowfalls are in the last part of December and the month of January.

The maximum monthly humidity is 85 per cent and the minimum 82 per cent. The latitude of Chefoo is 37° 34′, with a mean monthly maximum temperature of 79° F. and a minimum of 29° F. The mean instantaneous temperature is 55°, with a maximum of 106° and a minimum of 9°.

The Province is subject to both prolonged droughts and sudden floods, and this is mainly due to the lack of forests. The floods in the valley of the Yellow River are very destructive, and usually disastrous, sweeping over a great area of country, claiming heavy tolls in human life and causing widespread poverty.

POLITICAL SUBDIVISIONS.

Tsinan (Tsinanfu) is the capital of Shantung Province, and is located in the central-western part on the western foothills, about 5 miles south of the Yellow River. Tsinan is the seat of the civil and military governors of the entire Province, and directly under the former are the two commissioners of foreign affairs with headquarters at Tsinan and Chefoo and the four taoyins stationed at Tsinan, Chefoo, Tsining, and Tungling.

The commissioner of foreign affairs at Tsinan has jurisdiction over the districts controlled by the three taoyins of Tsinan, Tsining, and Tungling, whereas the offices of commissioner of foreign affairs and taoyin of Chefoo are administered by one official.

These districts are further divided into hsien (counties) and the highest official of each hsien is a magistrate, who in turn has assistant magistrates and submagistrates functioning under him at the more important centers within his hsien. There are 107 hsien in Shantung Province.

All these officials have administrative and judicial functions, and matters in which foreigners may be interested come within their jurisdiction. Appeals from their acts or decisions are possible—from the lowest official to the magistrate of the hsien and from him to the taoyin or the commissioner of foreign affairs of the district, and, in turn, to the governor of the Province, with the last appeal to the central Government at Peking.

EDUCATION.

Prior to the revolution of 1911 little attention was paid by the Government to modern educational methods, and, although provincial schools existed throughout the Province, the administration of the schools and the method of teaching and lack of discipline proved most unsatisfactory. Following the revolution the few who were interested in improving educational standards worked earnestly for progress, but the results of their efforts have been rather discouraging and not much improvement can be noted in comparison with the former methods.

The number of higher and technical schools has remained stationary and the number of middle schools has decreased. A considerable increase has taken place in the number of intermediate or higher primary schools and an especially large increase in the primary schools and in enrollment, but improvements in buildings and equipment have not kept pace with the increased requirements. The education of girls and young women has received considerable attention since the revolution in 1911. One evidence of the adoption of western methods is the wearing of uniforms by the students of government schools and the introduction of western athletic sports and military drill.

Out of a population estimated as high as 30,000,000, there are less than 100,000 pupils enrolled in all the Government schools in the Province, and, although there is no census, it is safe to estimate an overwhelming percentage of illiteracy.

In sharp contrast to the lax methods and poor results odtained by the provincial schools is the efficiency displayed in the conduct of the various missionary educational institutions throughout Shantung. Most prominent of all the educational institutions is the Shantung Christian University at Tsinan, conducted jointly by American and British missionary interests. Recently all branches of this university were concentrated in Tsinan and housed in modern buildings with up-to-date equipment. The university includes a school of theology, with a normal department; a school of medicine, in conjunction with which there is a hospital and school for nurses; and a school of arts and sciences, within which it is planned to organize a department of applied industries. The site of the university comprises about 30 acres, and the entire property has an estimated value of more than $500,000 United States currency. There is an enrollment of more than 300 students. The university is controlled by a council elected by the cooperating missions and by the Chinese church affiliated with them, namely, the American Board, the American Presbyterian, the Church of England, the Canadian Presbyterian, and the English Baptist Missions.

Of lower grade are the various normal, industrial, middle, intermediate, and primary schools and kindergartens conducted throughout the Province by different missionary societies. Generally speaking, the practice is to confine the higher education to the instruction of prospective preachers and teachers who will confine their future activities to furthering the work of the mission in this field. With the exception of the treaty ports, where Chinese are educated for work in the offices of foreigners, instruction is confined to the Chinese language. The Temple Hill English School, conducted by the American Presbyterian Mission, and a small school at Weihaiwei are the only institutions in the Province specializing in commercial education and conducting a business-college course in the English language. At stations where foreigners are employed to conduct the educational work of the mission and where the pupils enter boarding schools, more serious progress is being noted, but the great majority of mission schools are conducted in the villages by Chinese teachers who are poorly equipped for the work and have inadequate facilities; in consequence, results are poor. The American Presbyterian Mission is conducting a special school for the deaf at Chefoo and the American Mennonite Mission a special school for the blind at Tsaohsien.

A third class of schools consists of those organized by private Chinese individuals or groups for the education of the village children. This class of school was prompt to adopt the "new" or "western" method of teaching, and results were found more satisfactory in these schools than in the government or missionary lower-grade schools. This class of school, however, is rapidly disappearing from the Province, as recent enactments require the establishment of government schools, making these private schools unlawful. A number still secretly exist, and, unfortunately, the government schools that are to take the place of the closed private schools sometimes fail to materialize, with the result that illiteracy is increasing. With the exception of the Japanese schools for Japanese there are no foreign secular schools.

As a part of the Shantung University, the medical college occupies the premier position for medical instruction in Shantung Province. In the various hospitals conducted by missionary or religious societies primary instruction is given, and students so educated may eventually take up higher branches of medicine in the univeristies in China or abroad. There are three special schools for nurses conducted by foreign mission hospitals, mainly to fill vacancies in the nursing staffs.

The Shantung Christian University is well equipped with modern school supplies, and almost without exception the higher government and mission schools are similarly satisfactorily equipped. The reverse is the case with the great majority of primary schools of all classes.

A number of modern hospitals have been established at various points in Shantung Province, the most important being under missionary control. Of these there are nine American hospitals, and the most prominent is the Temple Hill Hospital of Chefoo, which is considered one of the best-equipped hospitals in China.

The introduction of western methods of teaching has naturally led to a demand for foreign school supplies, but because of financial reasons it has been possible to meet this demand only in the university at Tsinan and the higher grade schools of the principal cities of the Province.

Rapid strides have been made in the introduction of foreign medicine and medical methods, including surgery and dentistry, in Shantung Province, and with the growth of confidence the demand for modern appliances and supplies is greater than the financial means of purchasing them.

AGRICULTURE.

On account of the mountainous character of a large part of Shantung Province, the sandy nature of much of the soil of the lowlands, and the extremely dense population, it is imperative that every available patch of land that is fit for cultivation be intensively worked. In certain sections, however, because of unsettled conditions, a considerable acreage that might be cultivated is unused. But this is the exception, and in other parts of the Province the mountains are terraced to extend the cultivable area. In places the lowlands, which are subject to inundation and which after flood prevention could be cultivated, are now covered with sand.

The principal crops are millet, beans, wheat, corn, peanuts and walnuts, sweet potatoes, barley, kaoliang (kaffir corn), tobacco, fruit, cotton, and mulberry and scrub oak for sericulture. In addition, there are lesser crops of buckwheat, ginger, hemp, rice, and sesame. The fruits consist of grapes, pears, plums, peaches, apples, persimmons, apricots, and melons. Truck gardening is a most important occupation throughout the entire Province. The estimated yields per acre of the principal crops, so far as ascertainable, are as follows:

		Per acre.
Barbados millet	bushels..	30
Barley	do....	17
Beans	do....	16
Kaoliang (kaffir corn)	do....	31
Corn	do....	24
Cotton	pounds..	636
Ginger	do....	5,000
Hemp	do....	1,000
Millet	bushels..	30
Peanuts	pounds..	2,995
Peas	do....	867
Rice	do....	2,400
Sesame	do....	798
Sweet potatoes	bushels..	118
Tobacco	pounds..	667
Wheat	bushels..	19

Winter wheat is planted in September and harvested in June, and spring crops are planted in March and harvested from June to August, with sweet potatoes harvested in September.

The crop of peanuts, which is very extensive, might be increased in many parts of the Province by the utilization of uncultivated land that is not suited to other crops, and the exports of this important nut could be largely augmented. Both shelled and unshelled peanuts, as well as peanut oil, are of growing importance in the export trade of Shantung Province.

To a much smaller extent beans and bean oil are exported. Bean cake is usually retained for local use as cattle feed and as a fertilizer. The local production is not sufficient for the latter purpose alone, and considerable quantities are annually imported from Manchuria.

Wheat and, in smaller quantities, kaoliang and millet are grown in quantities greater than are needed for consumption in the immediate locality of production, but such excess is consumed in other parts of Shantung Province and is not exported abroad. In many cases where exportation, even to neighboring hsien, occurs, it does not represent a true excess, as the necessity to import articles urgently needed and not produced locally compels the farmers to sell products that should really be consumed locally.

In the neighborhood of Tsinan beef and eggs are produced in sufficient quantities to permit exporting.

Chihsia, Haiyang, and Laiyang produce and export ginger, and Tenghsien and Tsowhsien winter pears. Under the most favorable circumstances the Province could not grow sufficient foodstuffs for local consumption and is to a very great extent dependent upon Manchuria for the necessities of life.

Cattle-raising conditions vary greatly in different parts of Shantung Province, but on the whole this region is a good cattle country. In Lini, Chuhsien, Jihchao, Tancheng, Feihsien, and Ishui summer pasturage in the mountains is good, but there is no winter shelter and feed for large herds. In Penglai the herds are now plentiful and could be increased if there were the certainty of a good market. This could be done with profit if a modern packing plant could be established at a convenient shipping point on the railway. This would also permit the increased shipment of cowhides as well as pigskins and bristles. In Chaoyuan and Hwanghsien pigskins are now utilized. In some regions, notably Tsaohsien, Tsaochow, and Tingtao, cattle are plentiful and cheap and the number could be increased, whereas in other sections, such as Weihsien, Changlo, and Changi, lack of pasturage confines cattle raising to drafts animals only, and during periods of bad crops and high prices the cattle are of necessity sold purely for economic reasons. In other sections, particularly Tenghsien and Tsowhsien, afforestation is necessary to produce better pasture lands before the herds can be increased.

Farming methods in Shantung are most crude, the principal implements being native-made shallow plows, harrows, seeders, and hoes (similar to the broad side of a mattock). Mules and donkeys, with occasionally horses and oxen, are the only farm animals used.

Bean cake is extensively used as a fertilizer for the main crops and manure (animal and human) for vegetable fertilizers.

There is no system for financing farmers, who must seek their own private financial aid, usually at exorbitant rates of interest. Crops are marketed at stated periods according to locality, such periods ranging from two to five days.

Egg products and bristles are gathered throughout the district and enter extensively into the export trade of the important seaports, being also shipped in important quantities by rail.

The plaiting of straw braid is one of the most important industries in the Province and takes a prominent place in the exports.

MINERALS AND MINING.

Coal and gold are the most important minerals found in Shantung Province, and although apparently rich deposits have been located in numerous places little success has attended mining undertakings.

Iron deposits are also known to exist, but have not been actively mined. The richest deposit is in the neighborhood of Chinlingchen, on the Shantung Railway.

A diamond field near Ichow is also believed to exist, containing diamonds suitable for industrial purposes, but the exact location of the deposits has never been definitely ascertained, though extensive efforts have been made to that end. Regular mining operations have never been conducted.

Mica deposits have also been discovered in this Province, but, the quality being low, no mining operations have been undertaken.

Copper deposits have also been located in gold quartz, but not in quantities sufficient to be profitably worked.

The principal coal deposits are located in the southern part of the Province, the largest deposit being at Yihsien. Important deposits are also found along the Shantung Railway at Fangtze, Weihsien, and in the Poshan Valley.

The important gold deposits occur in the northern part of the Province, principally at Chaoyuan, Chiutien (near Pingtu), Chinnushan (near Ninghai), Hsiayutsen, and Kweishan. Numerous other deposits have been located, and attempts have apparently been made to obtain the necessary authority to work them, but all without result.

The administration of mining affairs is supposedly concentrated at the capital at Tsinan, under a certain degree of control from Peking, though mining development, particularly gold mining, in this Province seems in almost every case to have been controlled or retarded by the petty officials of the immediate locality. Mining and the taking up of mining claims by foreigners have always been discouraged by Chinese officials, and it was not until the conclusion of the Kiaochow Convention (which under clause IV granted German subjects the right to hold and develop mining properties for a distance of 30 li—10 miles—on either side of the Shantung Railway) that foreigners actively engaged in mining operations on a general scale. Since the capture of Kiaochow by the Japanese and their temporary taking over of the former German interests, the coal mines along the Shantung Railway and the iron deposit at Chinlingchen have been in their hands; with these exceptions no mineral deposits in the Province are being worked by foreigners.

The principal coal mine now being operated in Shantung Province is the Chung Hsing mine previously mentioned. Iron ore of good quality is also reported in this locality, but it has not been worked. A branch of the Tientsin-Pukow Railway has been built to Yihsien, where it connects with the mining company's railway for the purpose of hauling coal from this mine. These bituminous coal fields belong to the Chung Hsing Mining Co., which was started in 1880 as a purely Chinese company. In 1898 German interests entered the concern with a view to extensive improvements, but 10 years later it again became a purely Chinese company. It is claimed that the mines owned by this company are the only ones that have been operated in Shantung Province at a profit.

The coal areas at Fangtze, Weihsien, and Poshan were all German properties, which came into Japanese possession in 1914 with the fall of Tsingtau at the time the Japanese took over the Shantung Railway. The mines at Fangtze were for a time fairly successful, the output being consumed by the railway and locally, but later it was deemed advisable to abandon them on account of excessive water and indications that the supply of coal was diminishing. The Weihsien mines were considered unsatisfactory and were abandoned in favor of the Poshan coal fields. The mines in the latter valley proved to be by far the best. These mines produce sufficient coal for all operating uses as well as for the railway and military uses, and in addition to meeting the local requirements a considerable proportion is available for export. The mines are connected by a spur line to the main railway.

Considerable interest was manifested in the iron deposits at Chinlingchen by the former German owners, and shortly after the occupation of Tsingtau by the Japanese the latter constructed a branch railway from the main line to the locality of the iron deposits and plans were made to work the mines on an extensive scale; but apparently much time is necessary for thorough examinations and tests and the organization required for the work.

The gold mine at Chaoyuan is the only gold mine in Shantung Province in actual operation and is stated to be the only known gold mine that can be profitably worked. There are many difficulties to be overcome in the successful operation of this gold field, which covers a considerable area and lacks continuous veins, the gold being found in numerous pockets. Poor transportation facilities, with an absence of water, fuel, and timber at the mines, greatly add to the difficulties of profitable working. The mining methods now employed at this gold field are extremely crude, and it is only because of the cheap labor that the efforts of the present operators are successful.

The gold deposits at Chiutien near Pingtu were worked about 25 years ago. Recently Japanese mining men who have examined the tailings believe that they could be profitably worked, but apparently the mine itself is exhausted, though on this point there appears to be considerable controversy.

The gold deposits at Chinnushan near Ninghai, at Hsiayutsen, and at Kweishan, as well as in the neighborhood of Tengchow, Tungtsing, the Maoshan Mountains, Shaoanshan, Weihaiwei, and numerous other places are all in the same category. Indications of gold have been found, but all efforts to obtain mining rights or concessions have been unsuccessful. In some cases the deposits have been worked by the country people in the neighborhood of the mine, as for example at Hsiayutsen, where a great hole was dug, according to general belief, in the time of the Ming Dynasty, since which time there has apparently been no serious effort to work this property. At this mine copper is found with the gold.

In many places in the Province the country people wash gold from the streams in small quantities that in other countries would not be considered "pay dirt," but despite these indications there are no placer mines.

Except at the coal mines previously described, foreign methods of mining and the use of foreign mining machinery was confined to gold mining, and even in those instances failure resulted and the mines were shut down.

In view of the conditions outlined, there may be said to be at this time no possibility of introducing American mining machinery into Shantung.

WATERWAYS.

One of the main drawbacks to the development of the rich natural resources of this Province is the lack of suitable interior transportation facilities and, in consequence of this, the necessity for indirect shipping facilities with the important trade centers and countries of the world.

The main interior waterways of this Province are the Grand Canal, the Yellow River, and the Hsiao Ching River, though numerous smaller waterways are navigable.

The Hwang Ho, or Yellow River, enters the Province at the southwestern corner and flows toward the northeast, emptying into the Gulf of Chihli. The Hsiao Ching Ho branches from the Yellow River near Tsinan and flows in a more easterly direction, entering the Gulf of Chihli about 35 miles south of the Yellow River at Yangkiokow in Laichow. For a considerable distance inland between the two rivers is a barren plain which is subject to inundation.

The Grand Canal also enters this Province at the southern border, running in a northwesterly direction to the western border of the Province, where the canal turns and runs north. The canal crosses the Yellow River at a point about 60 miles southwest of Tsinan.

As a result of many years of neglect, silt has accumulated in the canal and the rivers to such an extent that in Shantung Province they are navigable in certain places only for very shallow native craft and in many places only for flat-bottomed boats. Inland water transportation is of vital importance to the economic life of this Province, and an important interchange of commodities is effected by this means of transportation. The waterways are important feeders to the railways.

Efforts are now being made to reclaim the Grand Canal, and if the channels of the Yellow and the Hsiao Ching Rivers were deepened and widened and the floods controlled, or if the proposed canal from Tsinan to the Gulf of Chihli paralleling the Hsiao Ching Ho should be constructed, the trade of the Province would be revolutionized by enabling small steamers to navigate these important waterways, converting the inland capital Tsinan into an important port in addition to its being the main railway junction.

The most important trading center situated on inland waterways is Tsinan, and of lesser importance are Tsining, Tehchow, and numerous other smaller commercial towns of varying degrees of consequence.

Rates of transportation vary greatly on different commodities, as well as with the journey to be undertaken, and no definite table under this heading can be given.

TAXES.

Numerous taxes are assessed on native and foreign goods when entering or moving in the interior. These taxes are assessed in different ways, and frequently a particular tax is subject to different methods of collection.

Foreign goods entering the country pay taxes to the Maritime Customs and when shipped to the interior either travel under transit passes, for which tax is paid upon issuance of pass, or by native customs, by which method the additional tax is paid at destination.

In some parts of Shantung Province, notably Chefoo, the transit-pass method is not in use.

These taxes are levied by the Government.

A further tax known as the "lotishui" is assessed on foreign goods at the place of sale and is in reality a local tax on imported goods, though it is collected under the direction of the Bureau of Finance at Tsinan and remitted to Peking.

Although the likin tax is not supposed to be in operation in Shantung Province, likin offices have been established everywhere and the regular likin tax is collected on goods passing the likin barriers. The collection of this tax is also under the direction of the Bureau of Finance at Tsinan and the proceeds are for the benefit of the central Government.

In addition to the above Government taxes, there is a water-police tax which varies at different places and a further water tax for the maintainance of particular waterways. As is the case with all the preceding taxes, the basis for levying the water taxes is the nature of the cargo. These taxes are levied in some cases at the beginning of the journey, in others upon the reaching of the destination, and in others at one or more places en route, or, again, it may be found that these taxes will be levied under all the above-mentioned circumstances.

A further tax is known as the commercial tax and is collected by chambers of commerce for municipal expenses within the jurisdiction of the chamber. This tax is in reality for registering firms, but as it is based on the quantity of cargo they receive and send, it may properly be included under the heading of taxes on goods moving within the Province.

Still another tax is levied for measuring junks. This tax varies greatly and is paid by the owner of the junk, usually for each journey. As the amount is included in the agreed price for carrying the cargo it is in reality an additional tax on moving goods.

Special taxes are imposed on wine and tobacco and may be levied at the place of origin or in transit or at destination or at the time of final sale, there being no definite rule covering all localities.

RAILWAYS.

There are only two railways in Shantung Province, one of which is a purely local railway operating entirely within the Province.

The northern section of the Tientsin-Pukow Railway enters Shantung Province at the northwestern corner near Sangchiayuan and runs in a general southerly direction until the Yellow River is reached at Chihohsien, where it branches sharply to the east entering Tsinan. From this point the line returns in a southwesterly direction to Chaomitien, whence it again runs south, leaving the Province in the center of the southern border.

The Shantung Railway starts at Tsingtau and runs in a general westerly direction to Tsinan, where it connects with the Tientsin-Pukow trunk line.

Roughly, 250 miles of the Tientsin-Pukow Railway traverses Shantung Province, and the Shantung Railway is 256 miles long. The branch of the latter line from Changtien to Poshan is 27 miles in length. Both railways have a gauge of 4 feet 8½ inches.

The northern section of the Tientsin-Pukow Railway was completed in 1912, mainly with German capital, and was constructed under the direction of German engineers by the Chinese. The operation of the line has been purely Chinese.

The Shantung Railway owes its origin to the Kiaochow Convention of 1898, and the line was constructed with German capital and by

German engineers. Construction began in 1899 and the line was opened to traffic in 1904; it was operated by the German company, the Shantung Railway Co., up to the siege of Tsingtau in 1914. The line was reopened, after the fall of Tsingtau, on November 15, 1914, under Japanese control and management. The materials and rolling stock were all of German manufacture.

Because of the unsettled conditions in Shantung Province nothing definite can be stated at this time in regard to proposed extensions of the Shantung Railway. The administration of the Shantung Railway has its headquarters in Tsingtau (see chapter on Tsingtau consular district, p. 614).

There are no railways under construction in the Chefoo consular district, though for some years past there has been considerable agitation for a railway from Chefoo via Tengchow to connect with the Shantung Railway at Weihsien, with a branch from Hwanghsien to Lungkow.

Another contemplated railway is from Kaomihsien on the Shantung Railway, running southwest, passing through Ichow and connecting with the main line of the Tientsin-Pukow Railway at Hsuchowfu in Kiangsu Province.

Another railway is planned to connect the Tientsin-Pukow line with the Peking-Hankow Railway, this railway to start north of Tsinan and to join the latter line at Shuntehfu in Chihli Province.

There are no tramways in any of the cities of this consular district.

ROADS.

The Province may be classed as being without roads in the generally accepted modern meaning of that term. There are innumerable cart roads, pack roads, and footpaths extending to all parts of the Province, but they are not scientifically constructed nor is there any definite system of maintenance. Such roads and paths as are in existence are in some respects more important than the waterways, from the standpoint of communication and transportation. Crudely constructed native carts, with two wheels, without springs, and drawn by three mules, are the principal vehicles for transporting heavy cargo over the more important roads. For lighter loads, and to the more outlying parts of the Province, and over roads where carts can not be used, pack animals (donkeys and mules) are the main means of transportation. For heavier loads that must be transported over the paths, wheelbarrows guided and controlled by men and drawn by donkeys are in use. These wheelbarrows consist of a large central wheel with platforms on either side; the load is distributed about equally and the balance maintained by the man in control, who bears the weight of the handles by means of straps passing over his shoulders. On up grades the man assists the animal and occasionally, when traveling with the wind, a sail is used. Another method of transporting goods is by equally distributing the weight suspended from ends of a pole, which is balanced on the shoulder of a carrying coolie.

The more wealthy travelers use a native contrivance known as a "shenza." This resembles a large sedan chair with long shafts, between which two mules are harnessed, one in front and one behind. Certain of those unable to afford a "shenza" travel on mules or donkeys, but the great majority of the people when traveling even great distances are compelled by poverty to walk.

Rates of transportation vary so greatly with different conditions and localities that no definite statement can be made on this subject beyond the fact that when all factors are considered the average rate proves very high in comparison with other countries and that the methods of handling cargo are very unsatisfactory.

In the neighborhood of cities having a chamber of commerce a road tax is assessed by the latter on goods in transit for the purpose of maintaining the roads. Such repairs, however, are of a crude nature; scientific modern methods are not understood and in most cases are probably totally unknown.

Shantung Province is densely populated, and cart roads and paths that have in many cases existed for centuries reach the most remote places. Extensions are therefore practically unnecessary.

POSTAL FACILITIES.

Considering the lack of modern means of transportation, excellent facilities are furnished by the postal organization throughout the Province. There are 97 main offices, with 7 suboffices and 708 postal agencies in the more important places in Shantung Province, with the head office in Tsinan and first-class offices at Chefoo and Tsingtau. Money-order and special-delivery, insured-letter and parcel offices are maintained in the principal cities. More than 20,000,000 pieces of mail matter are received annually and about half that number dispatched, in addition to about 12,000,000 pieces in transit, making a total of more than 40,000,000 pieces handled, which include almost 300,000 parcels received, 150,000 dispatched, and a like number in transit. Money orders are issued to the equivalent of almost $800,000 United States currency and cashed to the value of more than $1,000,000.

Foreign post offices are maintained at Chefoo as follows: British, French, Japanese, and Russian (since China's declaration of war against Germany the German post office has been closed).

Foreign post offices have also been maintained at the following cities: British office at Weihaiwei; German offices (before the war) at Tsingtau, Litsun, Sefang, Weihsien, and Tsinan. Japan is operating post offices in the former German sphere of influence.

Postal parcels are accepted for transmission to and from the United States by the Japanese and Chinese post offices, the former offering better facilities.

Money-order facilities with the United States are offered by the Japanese and British post offices.

All foreign post offices, as well as the Chinese post offices, accept mail for the United States.

Under normal conditions first-class mail matter from New York is in transit from 27 to 35 days.

TELEGRAPHS.

The Chinese Telegraph Administration, under the Ministry of Communications, operates extensive land lines throughout Shantung Province, maintaining 81 principal stations and more than 1,700 miles of lines in connection with the Government lines throughout the country. In addition, there is cable communication from Chefoo with Dairen, Tientsin, Weihaiwei, and Shanghai. Tsingtau is connected by cable with Shanghai. There is no wireless telegraph communication.

Telegraphic communication over the Chinese Government lines is limited to China only, the rates in Mexican currency being divided into two zones and the telegrams classed according to the use of a foreign or the Chinese language: Telegrams in foreign language—To all places in the same Province, 9 cents per word; to all other places in China, 18 cents per word; press telegrams (throughout China), 6 cents per word. Telegrams in Chinese—To all places in the same Province, 6 cents per word; to all other places in China, 12 cents per word; press messages (throughout China), 3 cents per word.

The Japanese cable to Dairen (formerly Russian) accepts messages only in the Japanese language. In addition to messages to Dairen the Japanese will take messages for Japan at the rate of 30 sen ($0.15 United States currency) per word, which is considerably cheaper than other means of cable communication with that country. By arrangement with the Chinese Government the above-mentioned line is used by the latter for a certain number of hours each day for the transmission of government and private messages.

The Great Northern Telegraph Co. and the Eastern Extension Telegraph Co., operating as the Submarine Telegraph Service, maintain offices in Chefoo and operate the Chinese Government-owned cables to Shanghai and Tientsin (two cables), with connections abroad. They also operate the British-owned cable from Chefoo to Weihaiwei.

The rates charged by this company vary greatly according to the class of telegram and the route, as well as the exact point of destination in the different foreign countries. Direct telegrams to the United States vary from $1.45 Mex.[1] for the Pacific coast to $1.60 Mex. for New York per word. Ordinary messages via Europe would be $0.55 Mex. higher to New York and $0.90 Mex. higher to the Pacific coast. Deferred telegrams by the latter route are, roughly, half the above charges.

Messages are also accepted by this company for Weihaiwei at $0.09 Mex. per word and to other places in China from $0.18 to $0.45 Mex.

The cable from Chefoo to Dairen was laid by the Russian Government from Chefoo to Port Arthur and became the property of the Japanese Government after the Russo-Japanese War, when the terminus was changed.

The cables from Chefoo to Tsingtau and from Tsingtau to Shanghai were laid by the Kiaochow (German) government. The former line was cut during the siege operations against Tsingtau in 1914, and the cable has never been repaired and operated since.

There are no direct cable communications with the United States, and no extensions to the present facilities are contemplated.

TELEPHONES.

Telephone services are maintained in Tsinan and Chefoo and owned and operated by the Chinese Government. More than 500 telephones are in operation in Tsinan and more than 400 in Chefoo (see Tsingtau report, p. 616, for telephones in that city).

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[1] See footnote on p. 84.

American telephone equipment is in use in Tsinan, and an American company has concluded an agreement with the authorities for the supply of all further materials needed for extension. The installation charge in Tsinan is $15 Mex., with a rental charge of $5 Mex. per month. The common battery system is in use.

The original equipment used for the Chefoo installation is the common battery system and was of Norwegian manufacture; all new material used comes from Japan. The installation charge in Chefoo is $10 Mex. and the rental charge $5 Mex. per month. The service is most unsatisfactory, and there is no prospect of improvement or extension.

NEWSPAPERS.

There is one foreign newspaper published in this consular district, known as the Chefoo Daily News, which has been devoted almost entirely to publishing war telegrams and has only a very limited circulation among the foreigners.

In Chefoo the following Chinese papers are published: Chung Shen Pao (The Awakening Bell), Chi Fu Shang Pao (Chefoo Commercial News), and Chi Fu Jih Pao (Chefoo Daily News), the last-named being Japanese owned.

The Chung Shen Pao (The Awakening Bell) is issued daily and has a circulation of about 800. A page advertisement is charged for at the rate of $40 Mex. per month.

The Chi Fu Shang Pao (Chefoo Commercial News) has a daily circulation of about 700. There is no fixed advertising scale, as the rate is governed by the text and is also subject to special arrangement. This paper asks about $100 Mex. for a page advertisement for one month.

The Chi Fu Jih Pao (Chefoo Daily News), although published in Chinese, is a daily paper owned and edited by Japanese, with a circulation of about 1,000. The charge for a full-page monthly advertisement is $80 Mex.

The principal newspaper of Tsinan is the Shantung Jih Pao (Shantung Daily News). The advertising rates of the paper are $2.90 Mex. per English inch per month, with 10 per cent discount for 6 months' insertion and 20 per cent discount for 12 months' insertion. The ordinary method, however, for charging for advertisements is that of a fixed price per Chinese character of a given size per monthly insertion, as, for example, "No. 4 characters" are printed for $0.003 Mex. per character per month. The daily circulation is estimated at about 2,000.

The percentage of Chinese able to read may be estimated roughly at 3 or 4 per cent of the entire population of Shantung.

PUBLIC WORKS AND SANITATION.

The only undertaking of consequence in the nature of public works is the construction of a breakwater and harbor works at Chefoo. The plans for the construction of the breakwater were concluded in 1914, actual work began in August, 1915, and it is planned to complete the work by the winter of 1920. The plan is to construct an outer breakwater at the eastern end of the harbor, with a passage between the breakwater and Tower Hill, and a mole at the western end of the harbor running from the shore in the direction of the northern end of the breakwater and having a quay wall at its northern end, the space between forming the northern entrance. Upon completion of this work the shelter formed by the breakwater and the mole will be dredged.

The funds for the construction of the breakwater, which will probably exceed 3,000,000 Haikwan taels (at present exchange over $3,000,000 United States currency), were derived mainly from grants from the Chinese Government, monthly loans from the surplus customs revenue of the Maritime Customs, overdrafts from the Russo-Asiatic Bank, and a surtax of 6½ per cent on the amount of import and export duties paid on goods passing through the Chefoo customs.

The construction of the breakwater has been undertaken by the Netherland Harbor Works Co. The breakwater will be about 2,600 feet in length and the mole about 6,000 feet with an additional 600 feet of quay wall at the northern end.

Facilities will be provided for unloading ships at the mole and rails will be laid to the shore which can eventually be connected with the proposed railway from Chefoo to Weihsien should the line ever be constructed.

An American company (the Siems-Carey Co.), operating in conjunction with Japanese, is at present making plans for the reclamation of that part of the Grand Canal in this Province, but the details and the extent of the undertaking have not been made public and only preliminary surveys have been started.

In Chinese cities municipal affairs are under the direct control of the territorial official who appoints headmen for the villages and in larger cities a headman for each section. Where there is a chamber of commerce the headmen cooperate with it in the direction of municipal control. These headmen are usually the oldest or the most prominent and wealthy residents of the village or section and consequently are men of influence with their neighbors. The construction, repair, and cleaning of streets, as well as lighting, are under their general direction and regulations drawn up by them and approved by the territorial official are enforced by the police. A system so loosely organized almost always leads to lax control: there is usually no fire protection, and little attention is paid to the disposal of sewage. Surface wells obviate the necessity for municipal water supply. In all but the largest cities such conditions prevail, and there seems little or no prospect for improvements until some time far in the future.

In Chefoo a section of the city has been set aside for foreign residence, and an informal international committee composed of foreign and Chinese residents of the section, in equal proportion, cares for municipal requirements. The section is policed by the regular Chinese police of the city, but the maintenance of streets and drains, lighting, and fire protection are provided for and under the control of the international committee. The members of the committee are elected annually and serve gratuitously, and funds for municipal expenses are obtained by voluntary contributions from the residents of this section, both Chinese and foreign. The streets are well lighted by electricity and well kept, macadamized roads lead to all parts of the section, and a "Bund" has been constructed along the water front of this part of the town, affording a wide road.

The possibility of building municipal waterworks for Chefoo was considered a few years ago, but the undertaking was abandoned because of the high cost of construction. Under more normal conditions this matter may be revived and in the meantime the sole source of water supply for the entire city is from surface wells.

Tsinan, the capital of Shantung Province, comprises the walled city as well as a large area of land to the west which is the treaty port intended for foreign business and residence. The latter part of the city has been laid out in wide macadamized roads, is lighted by electricity and well policed, and many foreign buildings have been erected. The city is progressive. In the development of the Province the growth of Tsinan is assured, and it promises to become one of the most important trade centers of China.

PUBLIC-SERVICE COMPANIES.

Electric lighting and power plants are operated in Tsinan and Chefoo.

The plant at Tsinan is owned and operated by the Shantung Electric Light Co., using a 110-volt alternating current. The company is a privately owned Chinese concern with a German manager. The original materials used were of German manufacture, but at present Japanese-made materials have supplanted the former. There is an installation charge of $5.50 Mex. per light. The tariff is $0.35 Mex. per kilowatt hour or without a meter $1.60 Mex. per 25-candlepower light. It is expected that when normal conditions prevail the charges will be considerably reduced.

The plant in Chefoo is owned and operated by the Chefoo Electric Lighting Co., a Chinese concern under Japanese technical management. The machinery and materials are all of Japanese manufacture, and recently additions of American machinery were made to the plant, which is now satisfactorily operated. Because of its limited capacity, however, current is supplied only from twilight to sunrise.

Two systems of charges are in effect. The first provides for a fixed price per lamp according to the candlepower, as follows: 5 candlepower, $0.60 Mex. per lamp per month; 10 candlepower, $0.90 Mex.; 16 candlepower, $1.20 Mex.; 25 candlepower, $1.60 Mex.; 50 candlepower, $2.50 Mex., 100 candlepower, $4 Mex.; 200 candlepower, $7 Mex.; 400 candlepower, $12 Mex.; 1,000 candlepower, $20 Mex. With a meter, with a minimum of 30 lamps, the charge is $0.35 Mex. per kilowatt hour, with a minimum charge per lamp per month of $0.50 Mex., irrespective of candlepower and whether or not lights are used. Additional installation charges are made, the company supplying and owning the materials. The above only includes common installations, and better-grade installations and materials must be purchased outright by the consumer. The installation charge for private houses has been undergoing revision, and it is anticipated that new contracts will be made on a higher tariff, as the demand is greater than the capacity of the present plant and will soon absorb the additional power from the planned extensions.

The demand for electric lighting and power has increased in Chefoo to such an extent that the lighting company has been obliged to plan considerable extensions to its plant and for this purpose has purchased new machinery in the United States, which has recently been installed. It is the intention of the company to supply continuous current day and night; it is reasonable to presume that this will lead to increased use of electric power for industrial purposes and, as a consequence, further additions to the plant are certain to be urgently required in the course of a few years.

TREATY PORTS AND FOREIGN CONCESSIONS.

There are three open ports in Shantung Province, Chefoo, Lungkow, and Kiaochow, the last-named being considered in a separate chapter. Four other cities have been opened to trade—Chowtsun, Tsinan, Weihsien, and Weihaiwei.

CHEFOO.

Chefoo has a population variously estimated from 55,000 to 75,000, but in the absence of a definite census it is impossible to give accurate figures; 75,000 is the locally accepted number, but as a considerable portion of the population is floating it is possible that at times it is as low as 55,000. The city covers an area of about 12 square miles, is under the direct administration of a Chinese territorial official (taoyin), and is policed by a Chinese police force. A section of the town has been set aside mainly for foreign residences and business purposes, and although this is directly under Chinese administration and police control such municipal matters as roads, lighting, drainage, sanitation, and fire protection are in the hands of an international committee composed equally of foreigners and Chinese.

At Chefoo there is an American consulate, a British consulate, a Japanese consulate, and a Russian vice consulate. In addition there is an honorary acting consul for the Netherlands and honorary acting vice consuls for Sweden and Norway.

Since China's declaration of war against Germany and Austria-Hungary the consulate of the former and the honorary vice consulate of the latter has been closed.

Chefoo was opened as a port in March, 1862, under the treaty of 1858 with Great Britain. Because of its location on the northern coast of Shantung Province it is off the main trade routes and is served by coasting vessels. Since it has no rail or water communication with the interior and is served by roads in poor condition, there are many handicaps to trade development. The exposed position of the harbor and the frequent severe storms along this coast have proved a serious problem which it is believed will be fully overcome upon the completion of the breakwater and harbor works now under construction. Chefoo is an outport of the larger neighboring ports, principally Shanghai, and much of the trade of the city and the region which it serves is carried on through that port. Japan enjoys a naturally favorable position in regard to the trade of this part of China, and the convenient steamship connections from Chefoo either directly to Japan or to Dairen and Chosen enable that country to control a growing share in the trade of the port.

LUNGKOW.

Lungkow was opened by the Chinese Government as an open port of China in November, 1915, as a result of the desires of the Japanese, the port having been used by them for the landing of their army in preparation for the attack on Tsingtau. For some time after the fall of Tsingtau the Japanese showed considerable interest in the port of Lungkow, but this has to a great extent waned. The port would require permanent rail connections with the Shantung Railway and extensive harbor improvements before it could attain commercial importance. It is located on the north coast of Shantung Province, about 76 miles by sea west of Chefoo. The present population of Lungkow is about 4,000, and its future growth depends entirely upon the solution of Shantung's political problems. The building of the town is under the control of a special Chinese administration, and the streets have been mapped out and portions of the property sold for residential and business purposes, but little construction has taken place. There are no consular representatives at Lungkow and as its commercial activity is confined almost entirely to passenger traffic (coolie emigration) to Manchuria via Dairen and Newchwang and the importation of produce of Chinese origin, mainly from Manchuria, little attention need be given to its present trade. Japan has a decidedly favorable position in regard to the trade of the port and is so situated as to be able to derive full benefit from any future development. The Maritime Customs maintains a customhouse there.

Kiaochow was leased to Germany for a period of 99 years by an agreement signed March 6, 1898, as a result of Germany's seizing Kiaochow Bay on November 14, 1897, using as a pretext the murder of two German missionaries. Tsingtau, the port of the leased territory, is the most promising seaport of Shantung Province and, as a result of the military operations of November, 1914, is now under Japanese control. The Maritime Customs maintain a customhouse at Tsingtau (see special chapter on Tsingtau).

TSINAN.

Of the ports open to trade, Tsinan, the capital of Shantung, is the most important commercial center in the Province and is the second most important city in North China. Its earlier growth was due to its favorable central position within a few miles of the Yellow River, its water communication with the Grand Canal and with the Gulf of Chihli, and the various important producing centers in its neighborhood. Its later development is due to the construction of the northern section of the Tientsin-Pukow Railway, passing through Tsinan, and the railway from the important seaport of Tsingtau to Tsinan, connecting with the first-mentioned line. Since becoming a railway junction the place has grown greatly. By imperial decree of 1904 Tsinan was opened to foreign trade. The present estimated population is about 300,000. The city consists of the old Chinese city within walls, which covers a considerable area, and a new district outside the walls, usually referred to as "the Settlement," which has been set aside for foreign residence and trade. The city is under Chinese administration and police control.

British and Japanese consulates have been established for some years, and an American consulate has recently been opened. The German consulate was closed on China's declaration of war against Germany.

A deep waterway to the sea, to enable coasting vessels to proceed direct to Tsinan, and the completion of the various proposed railway additions which would directly and indirectly benefit the trade of the city would make Shantung's capital a commercial center second to none in North China provided no restrictions were placed upon its normal development. At present Japan enjoys a very strong position in that locality in consequence of the control of the Shantung Railway. As is the case with practically all new enterprises in this Province, the determination of its future political position completely governs, and it is doubtful whether Tsinan will be free to develop along natural lines for many years to come, though its progress will undoubtedly continue.

WEIHSIEN.

Weihsien, another city opened to foreign trade by imperial decree in 1904, enjoys a favorable position on the Shantung Railway about midway between Tsingtau and Tsinan. It has a population of about 100,000 and is the center of many industrial activities. A branch commercial settlement under the control of the Tsinan Commercial Settlement Bureau was established in 1906 but was not developed. There are no foreign consular establishments at Weihsien.

The Japanese, because of their control of the Shantung Railway, enjoy a favorable position in regard to the trade of this important commercial center. For a number of years plans have been discussed for the construction of a railway from Weihsien to Chefoo, but on account of various unfavorable conditions the plans have never advanced beyond the point of discussion. Should this line ever be built, Weihsien, a commercial center that is now declining, will receive a new impetus. The failure of the coal fields in its vicinity considerably lessened the importance of the city.

CHOWTSUN.

Chowtsun was opened by Imperial decree in 1904, but was never actually opened to foreign trade, though in 1906 a branch of the Tsinan Commercial Settlement Bureau was established there. It is estimated to have a population of more than 100,000 and is situated on the Shantung Railway about 50 miles east of Tsinan. There are no foreign consular representatives in this city. The future of its trade is mainly controlled by the Shantung Railway.

WEIHAIWEI.

Weihaiwei, situated on the north coast of the extreme eastern promontory of Shantung Province, was leased to Great Britain in 1898 in order to provide the latter with a suitable naval harbor in North China. The leased territory comprises the island of Liukung as well as the smaller islands in the bay and extends along the coast in both directions and inland for a radius of 10 miles with an area of about 285 square miles and an estimated population of 150,000. In addition to the leased territory there is a sphere of influence extending over an area of about 1,500 square miles. Weihaiwei has never been used as a naval base, but, because of its excellent climate, it has been used as a military sanitarium and a summer resort as well as a supply depot. The government is administered by a British commissioner. There are no foreign consulates or Maritime Customs at Weihaiwei, and the port has but little trade.

FINANCE AND BANKING.

CURRENCY.

The actual currency in circulation throughout Shantung Province consists of the old Chinese brass (contents 50 per cent copper) cash. These coins have a square hole in the center and are usually strung like beads, 1,000 constituting a unit. The coin is known as the "chien," and the unit of 1,000 is called a "tiao." In theory 10 of these brass coins equal 1 copper cent, which coin is called "tung tzu." In actual exchange, which fluctuates, 12 of these coins are considered of equal value with the "tung tzu." Ten "tung tzu" in theory equal a 10-cent silver piece, but in this also exchange fluctuations enter and usually 11 copper cents equal a 10-cent piece. There are also 5-cent and 20-cent silver pieces and these, with the 10-cent pieces, are known as "small coin"—"hsiao yang chien." The next larger unit is the silver dollar—"yang chien." In actual exchange about 120 cents in small coin is equal to 1 silver dollar, the latter being known generally as "big money" to distinguish it from small coin. Mexican silver dollars, Hongkong trade dollars, Chinese Yuan and Peiyang dollars constitute the "big dollars" above mentioned, and other silver dollars are at a discount. In many interior places, however, only the Pei Yang, which is minted in Tientsin, is accepted without discount.

A new currency, the coins being decimals of the Yuan silver dollar, is now in circulation. These coins are minted in 50-cent, 20-cent, and 10-cent pieces and are considered as "big money" as distinguished from the fluctuating small coin. They are accepted by the Government offices at their full value, but are not generally so accepted in trade. There is no gold currency in China.

Bank notes are issued by the Bank of China and the Bank of Communications and numerous native banks throughout the Province, usually in denominations of $1, $5, $10, $50, and $100.

The bank notes of the Russo-Asiatic Bank and the Hongkong & Shanghai Banking Corporation, of Shanghai, are accepted at par in Shantung, but notes of other foreign banks are discounted.

Bank notes are also issued by the native banks to represent a string of 1,000 brass cash and also in higher multiples.

The above-described coins and notes enter into ordinary transactions in the Province, but larger transactions are conducted in taels. The tael is not an actual coin but a weight of silver which is constantly fluctuating in comparison with the coins current. There are several different kinds of taels in Shantung Province alone, namely, the Chefoo tael, the Tsinan tael, the Lungchang tael, the Hwa Ping tael, and the Kiaochow tael. These all vary in fineness of silver and fluctuate according to the value of silver as compared with gold.

The tael is theoretically divided as follows:

10 hao=1 cash (li).
10 cash=1 candareen (fen).
10 candareen=1 mace (chien).
10 mace=1 tael (liang).

Different currencies are in use in Tsingtau, which are treated in the chapter on the Tsingtau consular district (see p. 619).

The difficulties encountered in foreign commercial transactions as a result of these varying currencies and units and their constantly changing relationships to each other can be readily appreciated, and though these fluctuations may mean considerable profit to banks and exchange offices they prove to be a serious drain on commerce and will continue to retard the growth of China's foreign trade until a standard currency has been adopted and the old currencies abolished.

BANKS.

The Russo-Asiatic Bank is the only foreign bank having a branch in Chefoo. This bank does a general banking business, including the financing of commercial and other undertakings, the discounting of local bills and foreign exchange, and the receiving of fixed deposits and current accounts. This bank pays no interest on current accounts in dollars, and on tael accounts the rate is 5 candareens per 1,000 taels per month. From 2 to 3 per cent is paid on fixed deposits, either dollars or taels.

Overdrafts are charged for at the rate of 7 per cent per annum, and loans are granted on approved securities at 7 to 8 per cent. Commercial paper is discounted at 8 per cent.

This bank also formerly kept accounts in Russian rubles and specialized in Russian exchange, but since the revolution in Russia and the sensational fall of the value of the ruble such accounts are no longer active and the bank no longer deals in that currency.

The bank notes of the Shanghai branch of this bank are in current use in Chefoo.

The Hongkong & Shanghai Banking Corporation maintains an agency; it does an exchange business, discounts local bills, and grants loans on legitimate commercial transactions but not on real estate. Interest on overdrafts, etc., is charged at the rate of 7 per cent. The notes of the Shanghai branch of this bank are current in Chefoo at par. The Chartered Bank of India, Australia & China also has an agency in Chefoo but is less active; the notes of this bank are not current, being discounted.

The Seiryu Bank, which is a branch of a Japanese bank established in Dairen, conducts a general banking business confined to China and Japan, including Chosen. This bank accepts current accounts on which it pays 1½ per cent interest per annum, payable monthly. On fixed deposits for six months 4 per cent is paid, and 5 per cent is paid on annual fixed deposits. Overdrafts are permitted, when guaranteed by approved securities, at 7 to 8 per cent. Loans are granted on merchandise and real estate, and interest, which is usually 7 or 8 per cent, is fixed by agreement according to the nature of the transaction. No credits are granted on crops. Drafts are issued and bills discounted on the principal cities of Japan, China, and Chosen.

The Bank of China and the Bank of Communications both maintain branches in Chefoo and engage in general banking business confined to China only. These Government banks pay interest on fixed deposits at the rate of 6 per cent per annum and on current accounts 3 per cent per annum credited monthly.

Other Chinese banks are more in the nature of local exchange banks and savings banks. They issue their own bank notes and are controlled by the chamber of commerce. These banks accept deposits at varying rates of interest, which are usually high, and their interest rates on overdrafts and on loans secured against real estate are extremely high. Money is not loaned against crops as security. The main functions of the small Chinese banks are confined to money changing, loans on ample securities at high interest rates, and the acceptance of deposits; they have little or no relation to ordinary commercial transactions. Affairs of that character are conducted directly between buyer and seller, and the financial parts of the transaction are settled in the same manner. Ordinarily the actual transference of money from one city to another in Chinese commerce is unnecessary, as it amounts to involved barter. Local payments are usually made in actual coin on settling days.

The principal Chinese bank operating in Chefoo is the Weihaiwei Agricultural Savings Bank, with head office in Weihaiwei. This bank accepts current accounts and fixed deposits and pays interest on the former at the rate of 3 per cent per annum credited monthly. On fixed deposits 4, 5, and 6 per cent per annum is paid on 3, 6, and 12 months' deposits, respectively. Credits are granted on approved securities, on which eight-tenths of 1 per cent per month is charged as interest. This rate, however, changes according to the transaction and may be considerably higher. Credits are not granted on such securities as crops, though the bank is known as the Agricultural Savings Bank. Its influence is little felt in commerce, as commercial paper is not discounted. Drafts are granted on the principal cities of Shantung Province and on Shanghai and Tientsin.

In Tsinan there are two foreign banks, the Yokohama Specie Bank and the Bank of Chosen (both Japanese).

SITUATION AS REGARDS RUSSIAN RUBLES.

In considering the finances of Shantung Province special attention must be paid to the Russian ruble. For many years Shantung coolies have annually migrated to Siberia and North Manchuria. For their work they received Russian rubles, and it was their practice to return to their homes in Shantung in the late autumn and bring their earnings with them. This money became a necessary part of the income of the people and not only was a great help to them in making necessary foreign purchases but was always relied upon to tide over an emergency and form a reserve. In former normal years the Russian ruble was equivalent to about $1.20 Mex. At the present time the ruble is worth only slightly more than $0.10 Mex. As many millions of rubles are held by the natives of Shantung the importance of this currency in the economic life of the people is manifest. Although rubles are not in circulation as a currency, there are nevertheless special ruble exchanges in the more important financial centers, where several millions of rubles may change hands daily.

MANUFACTURING AND OTHER INDUSTRIES.

Agriculture is one of the main industries of the north-central and western parts of Shantung Province, and, though crops are usually abundant, they are insufficient for the needs of the entire Province and considerable quantities of foodstuffs must be imported. Horticulture, confined mainly to vegetables and fruits, is also an important occupation of the people. Tree grafting was introduced by an American missionary some years ago, with a resulting great improvement in the quality of the fruits through the introduction of foreign strains. In consequence of neglect and an insufficient knowledge of this subject, the quality of the fruits has deteriorated of recent years. Sericulture in a crude way, consisting mainly in the protection of the silkworm and the collection of cocoons, is probably one of the most valuable industries, though not nearly as extensive as conditions would justify. This applies to the silkworm that feeds on the scrub oak leaves and produces the tussah and the silk from which pongees are woven. In the central and southern parts of the Province mulberry trees are grown from slips imported from Kiangsu and Chekiang Provinces. The quality of the mulberry is inferior and only a small quantity of white silk is produced, the bulk of the product being yellow silk. In comparison with the chief silk-producing Provinces of China the total output is small. Great quantities of Manchurian cocoons are imported annually to supply the needs of the local silk filatures. The silkworm in the eastern part of Shantung, as in Manchuria, feeds on the leaves of the scrub oak, and piece goods woven from the silk spun by these worms is known as pongee silk.

STRAW BRAID.

The plaiting of braid from wheat straw, which is a cottage industry in many parts of the Province, is one of the leading industries, occupying a vast number of people and yielding an important revenue. This industry is entirely in the hands of Chinese up to the point of marketing and shipping abroad, and the principal market is the United States.

HAIR NETS.

The hand manufacture of hair nets made from human hair was begun about 10 years ago and has now reached tremendous proportions. This is a home industry, the hair being supplied mainly by the merchants in the treaty ports to the interior villages, where the nets are finished in the homes of the people, collected, and returned in quantities. Although most of the hair used in this industry originated in China, it was, prior to the European war, shipped to Europe to be prepared and returned to Shantung Province for manufacture. Because of conditions resulting from the war, American-prepared hair largely took the place of hair prepared in Europe, and during recent years the industry of preparing hair locally has shown considerable growth. Peroxide of hydrogen, imported from the United States, is used for decoloring the hair. The art is little known in Shantung and the results are not as satisfactory as with foreign prepared hair, though considerable improvements are being noted.

BOBBIN LACE.

The manufacture of bobbin lace by hand is also a very important home industry, and great quantities of this lace are collected either at the treaty ports of the Province or at interior centers for marketing at Shanghai and Tientsin. High-grade English linen and cotton thread has been used in this industry, but in consequence of war conditions supplies have been interrupted, a poorer grade of Japanese thread has been substituted, and the quality has deteriorated. The manufacture of this lace is carried on by women and children.

EGGS AND ALBUMEN.

The egg and albumen industry in Shantung Province is another new industry started within the past decade. The yolks and whites are dried separately and powdered and in this condition, if kept dry, will remain good for an indefinite period. The eggs are collected in the southern part of the Province, and the industry is centered in the neighborhood of Tsinan. The principal consuming market is the United States. From 1,000 eggs approximately 14 pounds of dried yolks and 5½ pounds of albumen can be obtained.

SILK INDUSTRY.

The reeling of silk from Shantung and Manchurian cocoons is the largest and most important single industry of the Province and is centered in Chefoo. The raw silk or "tussah" is produced by killing the chrysalis by dry heat. The cocoon after being stored is softened by steam, and usually 8 cocoons are unreeled at a time to make 1 thread; under favorable conditions 8 cocoons will yield a thread over 1,000 yards in length. A full spindle is then twisted into a hank and marketed under a particular "chop" (trade picture or name). Silk thus reeled in Chefoo is mainly marketed in Shanghai, whence it is sold abroad.

The world-famous pongee silk is made on hand looms in various parts of Shantung Province from silk thread reeled as above described. Gum made from beans is added to stick the threads together, and the pongee is woven on crude native-made hand looms with bamboo teeth. Pongees are woven in a great number of widths and lengths and in various qualities and weights according to the grade of silk used. The finished pongees are further graded according to quality, weave, and color. Although the finished pieces range from a width of 17 to 43 inches—and sometimes on special order to 50 inches—and in length from 16 to 50 yards, with pieces weighing from 21 to 260 ounces, the average sizes are 18 to 20 inches in width and 20 yards in length and 33 inches in width and 20, 30, or 50 yards in length, with a considerable range in weights, usually from 30 to 125 ounces. During the past several years efforts have been made to standardize pongee silks, but, though improvements have been made, little real progress can be noted. The difficulty lies mainly in the fact that there are no large factories, units usually being from two to six looms and in many cases single looms in the homes of the people scattered throughout the far interior.

Although raw silk is marketed in Shanghai, pongees are largely marketed in Chefoo, though considerable quantities enter into the trade of Shanghai, Tientsin, and Tsingtau.

Although the reeling of tussah silk and the manufacture of pongees has been for many years the most important industry in this district, nevertheless, because of easy success and little competition, the filature owners have become overconfident, with the result that they have either failed to note the signs of the times or are indifferent. Whereas formerly there were about five filatures in Antung there are reported to be nearly 60 at present. When it is considered that the Chefoo filatures depend mainly upon the Manchurian cocoons for their silk and that they are under the disadvantage of paying high freight rates to ship the cocoons from the neighborhood of Antung to Chefoo, and in addition must pay customs duty, it will be readily understood that the Japanese have little difficulty in encouraging Chefoo filatures to move to Antung. The industry there, however, has been confined to reeling the silk, which is then mainly shipped to Japan, where it is either sold as raw silk or made into pongees by machinery.

In lighter weights it is better in appearance than the handmade pongees of Shantung but can not be compared for wearing qualities. In price it is at present about the same but undoubtedly will soon be cheaper. It is now largely taking the place of the handmade article in Australia, and an effort is being made to introduce it into the United States. The success of these enterprises will have a very serious economic effect upon this region.

The cocoons produced in this locality, though not great in quantity, are far superior to the Manchurian cocoons. Pongees made by hand from Shantung-produced silks will always bring higher prices, but the quantity produced locally is comparatively so small that the industry can not survive unless immediate steps are taken to increase the local supply. Up to the present time all representations to the filature owners and the officials have been in vain and nothing has been done. There are numerous suitable hillsides now unused where scrub oak could easily be grown and a plentiful supply of cocoons assured, but the owners seem to prefer to take the easier course and move to Antung, apparently forgetting that by so doing they are placing the industry in foreign hands and diverting the trade to Japan, besides abandoning the thousands of Chinese workers in Shantung who depend upon this industry for their livelihood. They have drifted so far with the tide that turning back now will be difficult.

WINE.

Wine is manufactured from the excellent grapes grown in the neighborhood of Chefoo. This industry is one of comparatively recent growth, and with time the quality of the output is improving. Modern methods are employed and the company is both owned and operated by Chinese, the earlier years having been under the direction of an Austrian expert. Native grapes being unsuitable for wine manufacture, American and later Austrian grapes were introduced. The wine is stored in casks, which were specially made in Austria and shipped in sections. Extensive concrete wine cellars below sea level were built. The casks are labelled showing the vintage, and the first wines were sold after the company had been in operation for 10 years.

In connection with the wine industry a special glass factory was built by the company to manufacture wine bottles, but on account of inability to obtain materials the plant was shut down in 1916.

PEANUTS AND OIL.

The growing of peanuts and the extraction of peanut oil is another important industry of the Province. The nuts, both shelled and unshelled, as well as the oil, are mainly marketed through Tsingtau and Tientsin.

COTTON.

The growing of cotton, though limited in area, has reached considerable proportions in the neighborhood of Lintsingchow and, in a lesser degree, Kaotangchow and Hsiatsing, all in the western part of Shantung Province. About half the crop is consumed locally, the remainder being marketed in Tientsin. This business is entirely in the hands of the Chinese.

CATTLE RAISING.

Although cattle are raised in considerable numbers and largely consumed in the Province, there is an important excess for export.

For many years past this Province has supplied the maritime Provinces of Asiatic Russia with beef, and of late years dressed beef has been shipped from Tsingtau to the Philippine Islands. It is a curious fact that, in a country raising cattle as extensively as Shantung, there are no dairy industries.

TOBACCO.

The growing of tobacco suitable for cigarette manufacture has been encouraged by the British-American Tobacco Co., and this industry is making considerable progress.

EXTRACTION OF BEAN OIL.

Shantung Province is the original home of the soya bean and the bean-crushing industry in this part of the world, and until the possibilities of Manchuria were discovered and developed this Province led in the industry. The oil is extracted from soya beans throughout the central part of Shantung Province almost entirely in hand presses and is marketed through Tsingtau and Tientsin. There are more than 10 steam presses in operation in Chefoo and about 40 hand presses. An important by-product of these oil mills is bean cake, of which approximately $1,000,000 worth (United States currency) is exported annually from the Province in addition to the supplying of the extensive local demand for bean cake as a fertilizer and cattle feed.

COLLECTING AND SORTING OF BRISTLES.

The collecting and sorting of hog bristles is confined to the region in the neighborhood of the Shantung Railway. The bristles, after being sorted, are tied in small bundles of uniform length and collected by small dealers in the interior, who in turn sell them to firms in the treaty ports. Eventually practically all the bristles are marketed in Shanghai. The Japanese have shown considerable interest in this industry, exporting via Tsingtau.

MANUFACTURE OF VERMICELLI.

The principal crude native industry is the manufacture of Chinese vermicelli from a small green bean known as the "lu tou." This vermicelli is manufactured not only in large factories but also by individual farmers and in the homes of the natives in all parts of the Province. Where the bean can not be grown it is transported from the bean areas for the manufacture of vermicelli.

The beans are harvested in the early part of September and are separated from the pods by the use of flails on primitive thrashing floors. Winnowing is accomplished by tossing the beans in the air with wooden shovels, the wind carrying off the chaff. By a complicated process of crude manufacture the vermicelli is made. A by-product of vermicelli manufacture is starch.

BRICKS, TILES, EARTHENWARE, AND POTTERY.

Brick making by crude native processes and the manufacture of tiles, earthenware, and pottery are important industries in many parts of the Province where suitable clay is plentiful.

Although many of the industries of this Province are the result of foreign encouragement, instruction, or financing, there are no important foreign industries or manufactures except coal mining and railroad operation.

COMMERCE OF THE PORT: INTRODUCTORY SUMMARY.

The table below gives the total imports and exports, foreign and Chinese, through the Maritime Customs at Chefoo during the years 1904, 1913, and 1918:

Imports and exports.	1904	1913	1918
Imports of foreign goods:			
From foreign countries and Hongkong	$5,473,614	$3,804,685	$7,594,699
From Chinese ports	5,344,129	3,747,283	3,821,371
Total foreign imports	10,817,743	7,551,968	11,416,070
Reexports of foreign goods:			
To foreign countries and Hongkong	70,586	301,570	351,855
To Chinese ports	2,316,883	749,728	4,326,246
Total foreign reexports	2,387,460	1,051,298	4,678,101
Net total foreign imports	8,430,274	6,500,670	6,737,969
Imports of Chinese products	7,634,860	7,607,467	12,119,756
Reexports of Chinese products:			
To foreign countries and Hongkong	153,037	761,323	261,193
To Chinese ports	1,676,543	603,306	1,010,559
Total Chinese reexports	1,829,580	1,364,629	1,271,752
Net total Chinese imports	5,805,280	6,242,838	10,848,004
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	2,451,381	2,666,420	5,241,365
To Chinese ports	5,921,480	7,688,164	13,959,873
Total exports of local origin	8,372,861	10,354,584	19,201,238
Gross value of the trade of the port	26,825,464	25,514,019	42,737,064
Net value of the trade of the port	22,608,415	23,098,092	36,787,211

EXPORT TRADE.

In discussing the exports of the products of Shantung Province it is necessary to take into consideration the various means and points of exit. Prior to the construction of the Shantung Railway, which was opened to traffic in 1904, and the opening of the northern section of the Tientsin-Pukow Railway in 1913, this Province depended mainly upon the port of Chefoo and the inadequate road and waterway transportation of the interior for the exportation of its products. After the building of the Shantung Railway the port of Tsingtau rapidly developed, largely at the expense of Chefoo. Upon the completion of the northern section of the Tientsin-Pukow line two new and extremely important exits for Shantung products were established, and by means of this line Tientsin and Shanghai gained considerably as distributing points for goods from this Province.

Goods leaving the Province via the ports of Chefoo and Tsingtau, as well as the small quantities from Lungkow, come under the observation and control of the Chinese Maritime Customs, but goods that leave the Province by rail and pass into the markets of Tientsin and Shanghai are uncontrolled so far as the customs authorities of Shantung are concerned. No statistics of exports by rail are available, and, as that is a constant and increasing means of export, the figures of the seaports alone can give no accurate idea of the vast and valuable export trade of Shantung Province.

It is an interesting fact that the leading articles of export from this Province are goods either wholly or partly manufactured, the former being of greater importance.

The growth of exports during the past 10 or 12 years has been notable and is almost entirely due to the construction of railways opening up considerable producing areas. The developments along this line, however, have been insufficient, and it will not be possible to take full advantage of the wonderful possibilities of this naturally rich Province until it is thoroughly opened up by rail and the Grand Canal and Yellow River are reclaimed.

The lack of collecting mediums for goods intended for export and the inadequate banking facilities are proving serious handicaps in the extension of all lines of goods suitable for export.

The following table of the principal exports of native products and manufactures through the port of Chefoo, destined for foreign countries, is submitted for consideration in connection with similar tables of exports from Tsingtau, though it should be borne in mind that, as explained above, the exports of these two ports represent only a portion of the total export trade of the Province:

Articles.	1904		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Beans, all kinds ... tons	8,793	$247,554	455	$11,206	4,721	$5,632
Chinaware ... pounds			97,599	5,295	74,133	6,255
Clothing, etc		324		60,562		93,017
Cordage, hemp, etc ... tons					19	3,883
Cotton goods:						
Nankeens ... pounds			62,533	16,204	9,733	4,832
All other						686
Cotton, raw and wadding ... tons	11	2,437			64	28,811
Dates, black and red ... do	2,054	75,627			118	10,144
Eggs, fresh and preserved ... number	240,450	1,272	7,896,502	33,702	77,000	9 3
Fishery products ... tons	912	48,512	1,300	71,798	773	73,688
Fruits, fresh and dried ... do	346	4,073	2,248	63,805	425	21,415
Ginseng ... pounds	14,472	64,322			141	614
Grasscloth ... tons			428	491,969	33	51,596
Groundnuts:						
In shell ... do	2,309	80,613	3,302	149,620	650	40,529
Kernels ... do	696	18,664			1,653	131,350
Hair nets						840,133
Hemp ... do			18	2,587	1	252
Hides, cow ... do	14	3,190	1	408	4	2,236
Lace				67,519		1,097,653
Leather and leather ware ... do			13	6,420	1	302
Licorice ... do	482	41,744	665	59,180	150	19,323
Mats ... pieces	766	92	104,105	6,340	58,348	5,618
Meats, fresh and frozen						42
Medicines ... tons	342	57,828		48,384		96,715
Metals ... do				44	64	9,369
Oil:						
Bean ... do	1	106	316	29,210	21	3,888
Groundnut ... do	1	102	4	650	70	14,223
Sesame seed ... do	3	426			7	2,163
Wood ... do					1	450
Paper ... do	11	2,497	98	12,399	45	11,824
Provisions of all kinds, n. e. s.		328		988		16,805
Seeds, all kinds ... do	231	7,696	473	36,039	134	17,036
Silk, raw, wild (filature), ... do	20	65,325	10	30,798	18	104,722
Silk piece goods ... do	2	11,396	25	110,919		5,782
Silk pongees ... pounds	122,666	195,685	251,333	555,660	643,600	1,691,879
Straw braid ... do	145,866	57,150			42,933	81,626
Tea ... do			29,333	3,739	11,601	3,150
Timber and wood ware				5,128		68
Vermicelli ... tons	5,733	513,099	11,434	1,344,727	5,707	910,113
Walnuts ... pounds	325,599	6,419			14,667	980
Postal parcels not otherwise classified				15,776		9,755
All other articles		1,097,937		186,838		83,076
Total		2,604,418		3,427,744		5,502,558
Less reexports of goods of Chinese origin		153,037		761,324		261,193
Net total		2,451,381		2,666,420		5,241,365

The above figures represent exports to foreign countries only and do not show the exports to other Chinese ports, which ordinarily have been about equal in value.

The following table shows the quantity and value of the articles declared at the Chefoo consulate for exportation to the United States during the years 1917 and 1918:

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value.
Brushes, bristle and horsehair.................number..	....	....	204	$110
Cages, bird (bamboo)...............................do....	38	$359	....	....
Hair nets (made of human hair)..................gross..	137,408	282,909	211,082	347,545
Hair, yak..pounds..	....	....	50	211
Lace and insertions, linen and cotton...........yards..	187,337	18,172	45,291	5,318
Lace, silk..do....	161	26	....	....
Lace goods and embroideries....................pieces..	13,971	4,092	2,928	1,814
Oil, peanut.......................................gallons..	10,000	10,410	31,000	36,557
Pongee silk, in gum..............................pounds..	273,253	798,109	180,555	473,732
Rugs, woolen.............................square yards..	1,260	2,961	....	....
Silk, raw..pounds..	....	....	1,918	5,716
Straw braid...do....	150,024	354,083	375,397	719,212
Total..	....	1,471,121	....	1,590,215

For purposes of comparison it may be stated that during 1913, the last normal year before the outbreak of the war, the declared exports from Chefoo to the United States were valued as follows: Hair nets, $1,140; lace and lace goods, $3,140; silk, $65,633; walnuts, $2,664; total, $72,577.

IMPORT TRADE.

Changes in trade routes have had a marked effect on the import trade of Chefoo. Since the opening of the Tientsin-Pukow Railway radical changes have occurred in the import routes to the interior of Shantung, the effect being even more marked than that of the operation of the Shantung Railway since 1904.

As with exports, totals for the Province are not ascertainable, since in the case of some commodities the railway entrances into the Province are of greatest importance and statistics covering them are not kept.

Although the revolution in 1911 made some change in the requirements of the people of this Province, particularly as to dress, on the whole the change was slight when the total import trade is considered and when comparisons are made with other parts of China, particularly the Yangtze Valley and the South.

Many factors are of vital importance in connection with the importing power of the people of Shantung, and probably the most important single factor is exchange. With exchange stable both imports and exports flourish. With exchange rising exports suffer, because of the high prices that must be paid in gold-standard countries, and in consequence the buying power of the people is restricted. With exchange falling the reverse situation obtains, to a limited extent, except that the conservative Chinese suspend importing as much as possible with the exchange unfavorable to them and, as most of the imports that are necessary for life come from other parts of China where exchange does not enter into the question, foreign imports might be curtailed for a considerable period without serious inconvenience.

In considering imports reference should be made to the paragraphs of this chapter dealing with shipping facilities, finance and banking, and communications.

In all foreign business, both import and export, the comprador system fully prevails.

The Province of Shantung, so far as foreign imports are concerned, is mainly served through neighboring large commercial centers, such as Shanghai, Hongkong, and Tientsin, the single exception being imports from Japan. Under this system goods packed abroad for shipment into China are usually repacked to meet the varying requirements of the locality of ultimate consumption. Shipments intended for the far interior points of the Province usually require such repacking on account of the methods of inland transportation. In filling the relatively few direct orders detailed packing instructions should be insisted upon, to avoid, so far as possible, additional packing expenses.

It is not considered essential to present a table showing the imports of foreign goods into Chefoo, because, as already indicated, these figures would represent but a small proportion of the total trade of the Province even when examined in conjunction with the import figures of Tsingtau. As previously stated, statistics for the entire Province are unobtainable, since the corresponding figures concerning goods entering and leaving by rail are not available.

The import trade of Chefoo has undergone marked vicissitudes. Prior to the building of the Shantung Railway and the harbor works at Tsingtau, Chefoo enjoyed the undisputed position of the leading port of Shantung Province, and goods destined for the interior or other coast ports depended upon the junk trade or the roads from Chefoo. This condition gradually changed, and with the growth of Tsingtau the trade of Chefoo declined. As, however, the railway created new business, the net result was a gain for the Province as a whole.

Commerce has shifted to more convenient channels and in reality has greatly grown. The opening of the northern section of the Tientsin-Pukow Railway greaty stimulated trade, both import and export. The fall of Tsingtau and the transferring of the former German interests to Japanese control temporarily confused the even flow of commerce, and for a time Chefoo gained in certain lines but, lacking rail communications with the interior, is again losing the advantage.

American exporters have found it difficult or impossible to compete with Japan in cotton piece goods in this part of China, and this item forms a very important part of the imports in which the United States is interested. The trade in 1913 had reached considerable proportions when the opening of the Tientsin-Pukow line afforded a readier entrance for interior trade. The same may be said of practically all the items in Chefoo's import trade that show a serious falling off in recent years. The exception is ginseng, which has grown to be the leading article of import into Chefoo but does not represent an item of local consumption to any considerable extent. Because of the favorable climate in Chefoo, Korean ginseng is imported and stored and the annual reexports to foreign countries almost equal the imports. The main consuming markets are South China (with Hongkong as the distributing point), the Straits Settlements, the Dutch East Indies, and the Philippine Islands. By a special arrangement with the Chinese Maritime Customs foreign ginseng may be imported into Chefoo and stored for a period up to three years and the amount of import duty paid will be refunded if the ginseng is reexported within that time.

SHIPPING FACILITIES FOR TRADE WITH UNITED STATES.

The main seaports of Shantung Province are Chefoo, Tsingtau, Lungkow, and Weihaiwei. Of these Tsingtau is treated in a separate chapter. Chefoo is the best and largest natural harbor in North China but is exposed to the northeast winds, rendering the working of ships impossible during stormy weather, particularly in autumn and winter. This defect is being overcome by the construction of a breakwater which, when completed, promises to make Chefoo harbor safe in any weather. Being an outport Chefoo has no direct shipping facilities with the United States or other important commercial countries. Practically all ocean freights for the United States are subject to transshipment at Shanghai. This is the most direct route, although it involves a longer haul. The route via Dairen and Kobe necessitates double handling, and cargoes are subject to long delays at both ports. From the middle of March to the first of December there are approximately five steamers per week touching at Chefoo en route for Shanghai. During the winter months—from the early part of December to the middle of March—steamship communication with Shanghai is very uncertain, frequently 10 days elapsing without communication. This is mainly due to the fact that, generally speaking, Chefoo is merely a port of call for steamers plying between Shanghai and Tientsin and, as the latter port is closed to ocean shipping on account of ice during the winter months, there is insufficient cargo to justify frequent calls at Chefoo. The completion of the breakwater construction and the building of a railway from Chefoo to the interior would undoubtedly insure regular steamship communication for this port.

Small vessels ply between Chefoo and Dairen about five times a week, and there is one vessel a week to Chemulpo, in Chosen.

The port of Lungkow is in communication by very small steamers with Chefoo about every three days if cargo warrants and weather permits. Occasionally a vessel of the China Merchants Steam Navigation Co. calls at the port for a cargo of vermicelli for Hongkong. In addition to this, small vessels occasionally run between Lungkow and Dairen.

As a result of the war a number of the larger China coast vessels were withdrawn for service in European waters, and, in consequence, the coasting service to Shantung ports was materially reduced.

On through bills of lading transshipment at Shanghai is undertaken by the agents of the trans-Pacific lines, and this also applies to American ports of arrival, enabling such through freight to be forwarded directly to destination without the intervention of forwarding and express companies—though in some instances, where goods are held in storage for considerable periods as a result of congestion, extra charges, which are collected at destination, must be made. All agents of the Canadian Pacific Ocean Service (Ltd.) are also agents for the Dominion Express Co., of Canada. This express company is in a position to handle shipments, though the services of an express or forwarding company are not necessary, as through bills of lading are issued to and from all principal ports.

Because the harbor of Chefoo is exposed to the frequent north and northeast gales, cargo is worked with difficulty in all months except May, June, and July. At other times of the year frequent delays occur and cargo is damaged by heavy seas. Ships are loaded and discharged from and into small lighters with capacities of about 35 tons of 40 cubic feet or 20 tons dead weight. These lighters are propelled by two oars at the stern. Loading is entirely by hand, and cargo arriving is handed from the lighters onto the uncovered customs "jetty," the cargo being protected from the elements by mats only. In winter the inner harbor is frequently filled with ice, rendering the working of cargo impossible. During the stormy months steamship companies hesitate to accept cargo for or from Chefoo, as the exposed position of the port may cause long delays. During heavy weather ships not only abandon their work but must seek shelter in the lee of the Chefoo Bluff, which forms the northern shore of the harbor across from the city of Chefoo. These difficulties will be overcome upon the completion of the Chefoo breakwater and harbor works, and loading will then be possible from alongside the piers built from the mole. Direct charges on steamers visiting the port are as follows:

Harbor surtax for breakwater construction, 2 Haikwan tael cents per net ton (at present exchange a little over 2 cents gold).

Tonnage dues collected every three months at the rate of 4 mace (0.40 Haikwan tael cent) per net ton of the registered tonnage of the vessel.

Extra dues for working cargo at night and on Sundays and holidays: 10 Haikwan taels for permit to work cargo from 6 p. m. to midnight; 20 Haikwan taels for all-night permit, 6 p. m. to 6 a. m.; 20 Haikwan taels for Sunday or holiday permit.

Coolies who load and unload vessels earn a maximum of 40 cents Mex. per day according to the amount of work performed. In calm weather this method of handling cargo is very rapid, and a 2,800-ton steamer can be loaded in 12 hours with light cargo.

FACILITIES FOR TRAVEL.

Hotels in the treaty ports and inland ports open for trade in Shantung Province offer very poor accommodation for one accustomed to modern hotels. The hotels at the treaty ports of Chefoo and Tsingtau and the hotel at Weihaiwei are used mainly by summer visitors who are attracted from other parts of China less favored climatically. Although these hotels are kept open in winter, they enjoy little patronage except from the lattter part of June to the early part of September.

Under the circumstances the rates vary, being high in summer and a little lower in winter. The rates (American plan) charged at the Astor House at Chefoo (the principal hotel in the port) are as follows: Summer rates, per day—Single room, one person, meals included, $6 Mex.; double room, two persons, meals included, $10 Mex. Winter rates, per day—Single room, one person, meals included, $6 Mex.; double room, two persons, meals included, $8 Mex. There are no deductions for longer periods.

At Weihaiwei there is one hotel for foreigners that may be compared with the hotel at Chefoo just mentioned.

There are no hotel accommodations at Lungkow for foreigners.

(For hotel accommodations at Tsingtau see chapter on that city.)

At Tsinan there are two small, poorly equipped foreign hotels, and no hotel accommodations at the other inland ports that are open to trade.

The best seasons of the year for visiting interior points of Shantung Province are spring and autumn, and in addition to these seasons the summer is most favorable for visits to the treaty ports and Weihaiwei. For tourists the summer season is recommended for the seaports in preference to either spring or autumn, as the sea bathing is excellent and the summer climate along the seacoast of Shantung Province is better than in any other part of China.

The treaty ports and inland ports open to trade offer no special attraction to sightseers, and the only important points of interest in Shantung Province for tourists are the grave of Confucius and the sacred mountain of Taishan. Confucius was buried at his birthplace at Kufu, near Yenchow, in the year 478 B. C. All the lineal descendants of Confucius are buried at this place and the seventy-fifth lineal descendant resides there now.

In the spring of each year hundreds of thousands of pilgrims from all parts of China visit the sacred mountain of Taishan, and this is a special point of interest to tourists by reason of its temples and scenic beauty. There are, however, no hotels for foreigners at these points, but as they are within a short distance of the Tientsin-Pukow Railway, and consequently not far from Tsinan, it is possible for energetic tourists to see them.

It is not advisable to visit Shantung Province in winter because of the severity of the climate and the almost constant storms along the coasts.

Steamship communication is infrequent and irregular, and the small coasting vessels plying between Shantung ports offer no conveniences. With the exception of the Shantung Railway and the Tientsin-Pukow line interior travel offers many hardships and inconveniences in any season of the year.

TRADE ORGANIZATIONS IN DISTRICT.

In Chefoo there are two foreign chambers of commerce, namely, the Chefoo General Chamber of Commerce, which is international, and the British Chamber of Commerce.

There are three main Chinese Chambers of Commerce in the Province—at Tsinan, Chefoo, and Tsingtau—with more than 30 branches in the principal trade centers.

Separate guilds exist for practically every trade and occupation; they are generally local in character and are not connected with guilds engaged in other lines, though in important matters they may cooperate. In some instances the more important guilds have headquarters in the main centers of trade, with branches in places of lesser importance. The guilds are permanent organizations with elected officers. They concern themselves mainly with the commercial interests, individual and collective, of their members and, in addition, settle trade disputes, enact trade regulations, and perform many municipal functions. In some places they establish standards of weights and measures, fix the rates of commissions, determine settling days, and generally see that business is honestly conducted. In conjunction with chambers of commerce the cooperating guilds exert a powerful influence in the commercial, political, and social life of a Chinese community.

AMERICAN INTERESTS.

Direct American interests in Shantung are relatively small, except for the Standard Oil Co. and missionary interests.

The extraordinary possibilities of the Province are gradually attracting the attention of American business men, and there is no doubt that when the latter are fully awake to the magnitude of the trade they will appreciate the desirability of directly entering the market. A large American import and export firm recently opened a branch in Tsinan and the Singer Sewing Machine Co. is represented by native agencies in all the important communities of the Province. The organization of the Standard Oil Co. is most complete. For its purposes the Province has been divided into districts, and branches have been established at Tsinan, Tsingtau, and Chefoo, with native agencies in every large and small commercial center, forming a complete network covering the Province.

There are nine American missionary societies, including the Young Men's Christian Association, represented in the Province, with 218 American workers as compared with 190 foreign workers in all the foreign Protestant missionary societies. In addition, there are 135 Catholic priests and 58 nuns stationed in different parts of the Province. For administrative purposes the Catholic missions have divided the Province into three sections. North Shantung, with Tsinan as headquarters, and East Shantung, with Chefoo as headquarters, are under the control of the Franciscans, while South Shantung, with Yenchow as headquarters, is under the control of the German missions.

The American missionary societies represented in this Province are engaged extensively in medical and educational work in addition to their evangelistic work. The larger hospitals under their control enjoy the reputation of being among the most up-to-date in equipment and best conducted in China.

The educational work ranges from kindergartens through lower and higher elementary schools and middle schools to the Shantung Christian University in Tsinan, which is conducted jointly by the American and British missionary societies (see p. 455).

There are few Americans engaged in purely commercial undertakings as compared with the nationals of the other leading commercial countries of the world. A number of Americans are occupied in connection with the growing and purchasing of tobacco for the British-American Tobacco Co. and make their headquarters at Erhshihlipu Station on the Shantung Railway, near Weihsien, and also at Fangtze, on the same line.

As a result of the conditions growing out of the European war American trade with this district has greatly increased. This is mainly due to goods from Europe being either entirely cut off or greatly reduced in quantity, the difficulties of shipping, and the uncertainties in connection with the filling of orders. Although Japan has secured the bulk of this demand, a considerable proportion is being met by the introduction of American goods. Up to the present time this has been the result of the pressing need rather than of efforts on the part of American manufacturers and exporters to enter the field, and nearly all the American goods sold in the Chefoo consular district have come from Shanghai and Hongkong.

The establishment of branches of a strong American general importing and exporting concern, with headquarters at Shanghai, in the principal trade centers of Shantung Province (Tsinan, Chefoo, and Tsingtau), with native connections throughout the Province, is essential to the obtaining of a firm future position in the rich trade of this district. Practically all the native products of Shantung Province are in strong demand in the United States, and a firm so established would be in a most favorable position to collect and sell these products in the United States and at the same time to meet the constant and growing demand for American manufactured goods throughout this Province. Until the establishment of such direct commercial control the trade between Shantung Province and the United States will continue to be mainly conducted by foreign firms acting as middlemen.

GENERAL TRADE SUGGESTIONS.

As the customs statistics of Chefoo and Tsingtau fail to portray adequately the trade of the Province as a whole, so also do they fail to indicate fully the lines of American manufacture or origin in greatest demand or capable of greatest expansion in Shantung. The reason for this is that the classification is not sufficiently detailed and that the country of origin is not indicated.

As already indicated, the greatest obstacle in the way of developing American trade in the Province is the lack of American commercial representation there. With the exception of two or three firms that are energetically developing their own lines, American exporters and manufacturers leave to chance, to a great extent, the growth of their business in this region. The great majority obtain lists of names of dealers and then content themselves with soliciting orders by mail, frequently accompanying their letters with more or less useful catalogues and occasionally sending price lists. Their terms amount to cash with order, and when nothing develops they conclude that the field is not worth working.

The more progressive firms that are not in a financial position to do the necessary pioneer work have, during the past several years, placed agencies or established selling arrangements with some firm in Shanghai in a position to carry stocks of staple articles and promptly meet the requirements of outport and interior demand. Frequently they are also in a position to give firm quotations for goods not carried in stock. Such arrangements are, unfortunately, few in number. The firms that have made a real success have directly entered the market themselves and, by establishing a main office (usually at Shanghai), branches at the most promising treaty or open ports, and native agencies at prominent trade centers, have been following the logical method for creating permanent markets in China.

In most instances, however, pre-war methods are being continued and many promising agencies are allowed to languish in foreign hands while foreign competing lines are energetically handled with great success.

In considering the possibility of selling American goods in Shantung Province one important fact should be borne in mind, and that is that the United States purchases a large percentage of the partly or wholly manufactured foreign exports of the Province, which annually total a considerable sum. These goods are mainly bought through foreign firms in the treaty ports that have had the foresight to establish themselves for that purpose. These firms purchase Shantung products to sell to America and purchase non-American products to sell to the natives of the Province. Obviously a strong importing and exporting house, with the necessary financial backing and connections and with competent men in charge of the main departments, would be in a position not only to supply the United States with the required Shantung products but also to sell directly to the Chinese through native agencies located in the main trade centers. This would practically amount to barter, and the profits to the concern undertaking the business (profits that now go abroad and that amount to considerable sums) would remain in American hands. In addition, American goods would be in a most favorable position in the Province. That the direct marketing of American goods pays in China has been amply demonstrated, and if, in addition to selling, a firm is in a position to buy, there is every inducement for the Chinese to deal with that concern.

The lack of jobbers and wholesalers in this district who are in a position to carry stocks makes it extremely difficult for American merchants to place their goods before Shantung buyers. At present the Standard Oil Co. is about the only concern importing goods directly from the United States. In other places where American goods are on sale one finds that they are supplied from Shanghai or Hongkong or some such large neighboring trade center and, after passing through several hands, finally reach the market. Naturally, under such circumstances, the price has greatly increased and great difficulty is experienced in trying to meet competition.

The past four years have been most favorable for the introduction of American goods. The former sources of supply of foreign articles have either been cut off or the production seriously curtailed, and in daily greater degree China has looked to Japan and the United States for many necessities. The former country has many natural advantages and because of the energy of its people is proving a serious competitor. The trade that has gone to the United States has in the main been in lines that Japan could not supply and is not noticeably due to the enterprise of American exporters. While it is true that a number of American firms have established branches in Shanghai, their activities have seldom been directed toward trade through other treaty ports with the vast interior. In this respect they have made but one short step to overcome pre-war handicaps, since, to reach the actual consuming markets, they are still mainly dependent upon foreign firms just as they were formerly dependent upon foreign firms to introduce American goods into the Shanghai market. Many lines of American exports are finding a ready sale in China to-day as substitutes for goods that are no longer procurable. Whether or not their sale is to continue upon the reestablishment of normal conditions depends mainly upon the American exporter's seizing the present favorable moment to market his own goods not alone in Shanghai but also in the Provinces where the goods are actually used.

CHUNGKING CONSULAR DISTRICT.

By Consul M. S. Myers.

LOCATION AND AREA.

The Chungking consular district comprises the Province of Szechwan and Tibet except the Kokonor region. As these two regions are so different and as the latter is relatively unknown, it will be dealt with separately.

Szechwan is one of China's western Provinces and lies between latitude 26° and 34° north and longitude 98° and 110° east. Its latitude corresponds to that of Texas. It is bordered on the north by the Provinces of Kansu and Shensi, on the east by Hupeh and Hunan, on the south by Kweichow and Yunnan, and on the west by Tibet.

This Province is the largest in China. Its area is 218,533 square miles, or nearly four and a half times the size of the State of New York. Texas, with its area of 265,896 square miles, is the only American State that is larger.

POPULATION.

As elsewhere in China, no reliable census has ever been taken. The population is variously estimated at between 45,000,000 and 71,248,600, the latter being the estimate of the Maritime Customs. Richard gives the population as 68,724,800, but considers this figure too high. This population is confined almost entirely to eastern Szechwan, or, roughly, that part of the Province east of the Min River, which comprises less than half of the total area, or about 100,000 square miles. As 50,000,000 may be considered a conservative estimate of the population of this part of the Province, its density may be regarded as approximately 500 persons to the square mile. This figure is exceeded by several other Provinces. The population of western Szechwan is very sparse and comprises aborigines, such as Tibetans, Lolos, and others, among which are independent tribes, as well as Chinese. The Chinese are found mostly in the towns, where they are either in official employment or engaged in trade.

PHYSICAL FEATURES.

Szechwan is mountainous and hilly. From the Min River west to the borders of Tibet there is a succession of mountain ranges running north and south—separated by deep gorges—which at many places reach a height of 16,000 to 19,000 feet. In eastern Szechwan hills and mountains are numerous, but in no case do they reach a great height. Running east and west on its northern border is a range that reaches a height of 8,000 feet but the mountains to the east and south are not so high. Inclosed within these mountains, which form its rim, is a table-land of red sandstone commonly called the "Red Basin." The Chengtu plain is the only important plain.

As described by Richthofen, the limits of the "Red Basin" roughly correspond with those of eastern Szechwan.

The principal river of this district and, in fact, of China is the Yangtze. From its source in the Kokonor, or Ching Hai, the general direction of its course is south until latitude 26.5° north, in Yunnan Province, is reached, whence its general direction is east. In its upper reaches it is known as the "River of Golden Sand," and its western watershed marks the western boundary of Szechwan. Its important affluents in this Province, beginning in the west, are the Yalung, Min, Lu, and Chialing Rivers, flowing south, and the Kung Tan River, flowing north. The affluents that flow south have many tributaries, the more important of which will be mentioned under "Waterways."

CLIMATE.

In mountainous western Szechwan, generally speaking, the climate is dry, and the winters are cold and the summers warm. The climate is considered healthful. In eastern Szechwan, except in the mountainous rim of the "Red Basin," the climate is mild. The changes in temperature are rapid, fogs are of frequent occurrence, and the sky is usually overcast. The rainy season occurs during the summer, when the humidity is the highest. At Chengtu the temperature in summer rarely exceeds 100° F. in the shade, and in winter there is only a short period when the mercury drops below freezing.

Along the Yangtze River the climate is semitropical. At Chungking the extremes of temperature are, of an average year, about 35° and 106° F. in winter and summer, respectively. The average winter mean temperature ranges between 46° and 53° F. The summers are hot and, because of the extreme humidity, are very trying. Fortunately the foreign population can escape to the near-by hills and obtain some relief from the heat. In spring and autumn sudden and marked changes are frequent. During the autumn and winter months the sun rarely makes its appearance through the bluish-gray atmosphere that obscures the sky. The average annual rainfall is about 50 inches. From April to October is the season of greatest rainfall.

POLITICAL SUBDIVISIONS.

The hsien or district is the fundamental subdivision of the Province. There are 141 hsien in Szechwan. Each hsien is presided over by a chih shih or magistrate. He is the authority who comes in contact with the people. His powers are comprehensive and his duties manifold, the more important being (1) administrative; (2) judicial (in a few important places courts—shen p'an t'ing—have been established and are now responsible for much of the judicial work); (3) supervision of education; (4) preservation of order.

There are four tao or intendencies in the Province. Each tao is presided over by a taoyin or intendant. These are civil officials directly under the governor, the highest civil authority of the Province. Their principal duty is to superintend the many district magistrates within their respective jurisdictions.

There are two other officers of whom mention might be made, though they are not vested with administrative powers. They are the commissioner for foreign affairs at Chungking, who is also superintendent of customs, and the special delegate for foreign affairs at

Chengtu. These officers are directly controlled by the Ministry of Foreign Affairs at Peking, but are subject to the supervision of the governor. The superintendent of customs, in respect to his duties as such, is directly under the Shui Wu Ch'u, at Peking.

EDUCATION.

The years 1905 to 1910 may be regarded as the period of transition from the old educational methods to the new. The change was necessarily slow, for a number of reasons, of which the more important were lack of adequate funds, lack of trained teachers, and the attitude of many officials, which may be attributed in part to the regulation requiring officials of the rank of magistrate and below to take a course in law. By about 1910 schools for the old learning had disappeared.

According to the latest official report on education in Szechwan Province published by the authorities (that for 1914), the total school attendance in the Province in both Government and private schools was 364,205. Of these, 5,739 students were in schools for higher education (mostly law schools), 9,827 in middle schools, 2,031 in industrial schools, and 345,121 in the 10,891 primary schools. Education in the primary grade is to a great extent provided by private schools, but above this grade very largely by the Government.

The chief educational center of the Province is Chengtu, the capital. It has a provincial college, a foreign-language school, a normal school, and a technical school, connected with which there are a number of foreign teachers. Of other schools above the middle-school grade there are the Normal School for Girls, the Business School, the School of Law and Politics, the School of Jurisprudence, the School of Sericulture, the Preparatory School for Students Going Abroad, the Girls Industrial School, the Trade School for Girls, and the School for Kindergarten Teachers. The above are Government schools and, in addition, there are several private law schools. There are no native medical schools or hospitals, except, in the case of the latter, military ones.

The educational work of the Protestant missions has been coordinated by the formation of the West China Christian Educational Union, established in 1906. The following missions in Szechwan are members of the Union: American Baptist Foreign Mission Society, Canadian Methodist Mission, China Inland Mission (Eastern and Western Districts), Church Missionary Society, Foreign Christian Mission, Friends' Foreign Mission Association, and Methodist Episcopal Mission. According to the statistical report of the Union for 1915, the missions maintained 444 junior primary schools with 13,997 pupils, 40 senior primary schools with 879 pupils, 12 middle schools with 565 students, 4 colleges with 59 students (the university), and 5 theological and 6 women's training schools having student bodies of 45 and 104, respectively. There are 707 teachers in all grades. The university is situated at Chengtu. A German mission society supports a girls' school at Shunching in which there are about 40 pupils.

The Catholic missions also maintain many elementary schools, there being 350 parish schools in this part of the Province, with more than 6,000 pupils. They have 3 colleges in the Province (2 in Chungking and 1 in Chengtu), 10 seminaries, and 5 boarding schools for girls.. Two of the colleges are now closed as a result of the war.

There is only one foreign secular school in the Province. It is the Deutsch-Chinesische Schule at Chengtu, which is now attended by about 80 students. It is of the middle-school grade. There are two German instructors in the school, which, it is understood, has received support from Berlin.

The Protestant missions support 24 hospitals and 34 dispensaries in Szechwan (report of 1915) and the Catholic missions 5 hospitals and 7 dispensaries. The German Government has supported a hospital at Chungking, which has been in charge of an army doctor. The name of this hospital is the Deutsche Poliklinik für Chinesen.

So far no market has existed for modern school supplies and the prospects are not promising.

As regards hospital equipment, a certain amount is in use by the hospitals above mentioned. The supplies and equipment are, generally speaking, obtained either from the home countries supporting the missions or from Shanghai. There is no prospective increase in the demand for such equipment.

AGRICULTURE.

Agriculture is the principal occupation of the people of Szechwan. Rice is the most important crop and is generally cultivated throughout the "Red Basin." The crop year is from April to August. Forty-five bushels per acre from fields continually covered with water is said to be a fair yield. Rice is the chief foodstuff.

Other crops of lesser importance are wheat, rape, beans, sweet potatoes, maize, hemp, tobacco, and sugar cane.

Wheat is one of the principal winter crops, its harvest falling in May. Twenty-five bushels to the acre is claimed to be an ordinary yield, but as much as 50 is harvested. Wheat is exported to other parts of China.

Rape is grown extensively for oil for cooking purposes. It is harvested in May also.

The soya bean is very generally cultivated, chiefly as an article of food. The crop is sown in April and harvested in August. A variety of other beans as winter and summer crops are also grown as articles of diet.

Sweet potatoes are very widely cultivated as an article of food.

Maize is generally cultivated throughout Szechwan. It is planted in April and harvested in June. Forty bushels per acre is regarded as a good yield, but the average is about 30, as the crop is usually raised on poor soil. Maize is grown principally for food purposes.

Hemp, *Cannabis sativa* and *abutilon,* is grown to a large extent. The crop season of the former is February to June and of the latter April to August. The latter is the more largely exported.

Tobacco is a large crop of the Chengtu plain. Tobacco shoots are transplanted in March and the harvest is gathered in June. Tobacco leaves are exported to other Provinces.

Two kinds of sugar cane are grown—the red, for chewing purposes only, and the white or yellow for manufacture into sugar. The cane is ripe in November. Brown and white sugar is exported for consumption in other parts of China.

Among the above products, hemp is the only one that is sent abroad, where it is largely used in the manufacture of carpets.

The most primitive farm implements are used. The water buffalo is the common farm animal. A spade, a sickle, and a one-handled wooden plow with an iron shovel comprise the principal implements in universal use. Night soil is the most common fertilizer; refuse cakes of crushed rapeseed, beans, etc., and crushed animal bones are among the other fertilizers used. The dung of buffalos is generally used for fuel.

Water buffalos and cows for use as beasts of burden are the most common livestock. Ponies are scarce and are used chiefly for riding. Every household has its few pigs which are raised for the market. Goats are also raised in considerable numbers. In western Szechwan and in Tibet grazing is the chief industry of the people, and sheep and goats are found in large numbers. Rabbits are said to be domesticated and raised in northern Szechwan for their skins. Ducks are raised in large numbers for sale to restaurants.

Land holdings are invariably very small. When the farmer needs financial assistance he obtains it by either selling his crop before it is ripe or by borrowing money from his market town, the latter being the more common practice. Throughout Szechwan these towns have frequent market days, on which occasions the farmer takes his produce there for sale.

Silk production is one of the principal and most general industries of this Province. The chief centers of production are the districts of Chengtu, Tungchwan, Kiating, and Paoning. The eggs of the worm are hatched in March, and by the early part of May the silkworm has completed its spinning. There are many schools for instruction in sericulture, and recently more attention has been given to the cultivation of mulberry trees than formerly. Wild silk is also a product of this Province. Silk is the most important export from Chungking.

Other products that enter into the export trade are gallnuts or nutgalls, medicinal herbs, rhubarb, turmeric, vegetable tallow, white wax, and wood oil. The wood-oil tree—t'ung shu—is found more abundantly to the east of Chungking. Wanhsien is the chief center of export. The nuts from which the oil is expressed are gathered in November. The other products are sufficiently touched upon under the heading "Export trade" (p. 506).

In connection with agricultural products, the chief subsidiary employments include the expressing of wood oil and rape oil, the crushing of sugar cane, flour milling, and the manufacture of grass cloth. No modern machinery of any kind, so far as is known, is in use in these industries.

MINERALS AND MINING.

The mineral wealth of Szechwan is confined chiefly to the region west of the Min River. Although this region is very imperfectly known, it is considered to be one of the richest mineral areas in China. Here gold, silver, copper, lead, zinc, coal, iron, antimony, white copper, gypsum, mica, and other minerals are found. The chief mining centers are Yachow, Tachienlu, Ningyuanfu, and Huilichow. Zinc, lead, coal, and iron are important deposits of Yachow, gold and silver of Tachienlu, gold, lead, zinc, etc., of Ningyuanfu, and copper of Huilichow. In Mienning district, near Ningyuanfu, is situated the well-known Maha gold mine. This mine was operated as a joint Government and private undertaking and modern machinery was used, but for some years it has been lying idle. In 1914 it was decided to start operations again and a foreign-educated Chinese mining engineer was given charge of the mine, but before anything was done the plan was given up. Both alluvial and quartz gold is worked in this mineral belt. According to a British consular report, the total gold output of this region is estimated at $225,000 annually.

In the "Red Basin" the principal minerals to be found are coal, iron, and salt. Coal is widely distributed throughout the Province, but in many places it is of a very poor quality. According to Richthofen the districts of Suifu, Yachow, and Chengtu and the northern rim of the basin from Kwanhsien to Kwangyuanhsien "furnish the largest quantity and best descriptions of coal." A very good quality of coal is also mined along the Chialing River. The output of coal in this Province is variously estimated at between 300,000 and 800,000 tons per annum. Iron is also widely distributed and is usually to be found in the coal measures. Chichianghsien is one of the most important iron-ore mining centers. The mining of coal and iron is limited to the demands of the local market.

The principal salt-producing centers are Tzeliuching, Kiatingfu, and Paoningfu. The brine wells of Szechwan are famous, and the production of salt constitutes one of its important industries. Salt in considerable quantities is sent to contiguous Provinces. The primitive methods of raising brine by buffalo winches and bamboo-ribbon rope attached to bamboo buckets still prevail, but at Tzeliuching recent years have witnessed the introduction of simple steam hauling machinery. These plants consist of an ordinary steam winch, the drum of which holds about 3,000 feet of half-inch wire rope. Steam is supplied by a vertical cross-tube type of boiler. These plants are made in Hankow and Shanghai. They are said to be crude and inefficient but have the recommendation of cheapness which appeals so strongly to Chinese buyers. The boring of these wells by the old method of the jumping beam and iron drill is still universally used, but as steam haulage plants are gaining popularity, it may be expected that the need for modern drilling machinery will soon be felt. It may be stated that some of these wells are as much as 3,000 feet deep. In that district natural gas is used as a fuel for evaporation purposes. The number of salt wells in operation at Tzeliuching in 1918 was 1,182, and the salt produced amounted to 3,565,358 piculs, or 212,224 long tons.

Petroleum is found in the salt-well regions, but so far it has not been refined and marketed.

Mining in Szechwan is done entirely by natives and by their primitive methods. Modern machinery is, so far as is known, used only to a limited extent for haulage purposes at Tzuliuching. Foreigners hold no mining concessions nor are they connected in any way with any mining enterprise. Mining affairs are handled by a mining bureau in the governor's office at Chengtu. The official attitude toward foreign investment is not definitely known, but there is no reason to suppose that it would be hostile.

It can readily be seen that the mining potentialities of this Province are vast. Certainly the day will soon come when the Chinese will realize the advantages to be obtained from developing this form of wealth, with which nature has so abundantly furnished them. In conclusion, the principal factors militating against mineral development may be briefly stated, as follows: The present mining regulations, which are regarded as burdensome and a serious obstacle to the growth of this industry; the inaccessibility of this rich mineral area and the serious difficulties of transportation; and the fact that this region is to a great extent inhabited by Tibetan, Lolo, and other tribes who are jealous of encroaching Chinese authority.

WATERWAYS.

In this immense Province, with its millions of people, there is not one mile of railway. By the Yangtze River and its tributaries the principal centers of trade are connected with the outside world. This river is navigable as far as Manyingssu, some 1,800 statute miles from its mouth. Between Ichang and Chungking there are the famous Yangtze gorges. It is this section of the river, with its many dangerous rapids and strong currents, that baffled navigation by steam for many years, and it was only in 1909 that it was demonstrated that steamers of special design and with much power could be successfully operated. Steam navigation is still impossible from December to April during the low-water season, when certain rapids are impassable. At present there are three steamers that have been successfully operated for several years, while several others have recently made their appearance. These steamers have a cargo-carrying capacity ranging between 60 tons in the case of the smallest and 250 tons in the case of the largest, in addition to a passenger load of from 160 to 400, respectively. The journey from Ichang to Chungking, 410 miles, is made in from three and a half to six days, depending upon the steamer and the stage of the water. The down-river trip is made in two days. There are now two small steamers of the launch type plying above Chungking, engaged in the passenger trade.

Cargo between Ichang and Chungking, the commercial emporium of Szechwan, is transported by junk except the comparatively small portion that is carried by the steamers. Junk traffic flourishes in the low and medium water seasons, the current becoming so swift in high water as to greatly increase the cost of the journey as well as the dangers and risks always attending it. For the up-river journey junks are hauled by trackers, and from 30 to 50 days are required to complete it, depending upon the size of the craft, the state of the water, and the winds. "Wu-pans," which are smaller and of slightly different design, make the trip in from 20 days upward. The cost of transportation varies with the cargo. Present rates for up-river cargo range between $20 Mex.[1] and $30 Mex. per ton. The down-river rate is about $12.50 Mex. per ton. Steamer rates also vary and are much higher than junk rates. The down-river journey is made in from nine days to two weeks.

Of the navigable tributaries of the Yangtze, beginning in the west, there is, first, the Min River running south and joining the main stream at Suifu. This river is navigable for junks and shallow-draft steamers below Kiatingfu except in winter and as far as Chengtu for the shallow-draft pan-t'ou ch'uan throughout the year. The Ya River is navigable for rafts between Kiating, where it enters the Min, and Yachow, and it is by that route principally that foreign goods are sent to Yachow and beyond. The Lu River, which enters the "big" river at Luchow, is navigable below Kienchow for native craft. The largest tributary, the Chialing, joins the Yangtze at Chungking. It is navigable for junks below Paoningfu and for small craft as far as Kwangyuanhsien. The Suining River, which joins it at Hochow, is navigable up to Chungpa beyond Mienchow. Another affluent which joins it just above Hochow, the Chu River, is navigable for junks as far as Suitingfu and even farther for smaller craft. The only important tributary of the Yangtze flowing north is the Kungtan River, which joins it at Fuchow. This river is navigable as far as Shihnanfu in Kweichow in high water, but only to the border of the Province at other seasons. Except the two small steamers running between Chungking and Kiating—only to Suifu during low water—native craft of various sizes provide the only means of transportation on these waterways. The up-river journey is in every case long and tedious, the boat being hauled up by trackers, but the return trip is made in comparatively quick time. The trip from Chungking to Chengtu by wu-pan requires about 30 days, while the return journey can be made in a week or 10 days. The present rates for cargo between Chungking and Suifu range between $12.50 and $16 Mex. per ton, and between Chungking and Chengtu they are about $26 Mex. per ton. The distance to Suifu is about 230 and to Chengtu about 420 miles.

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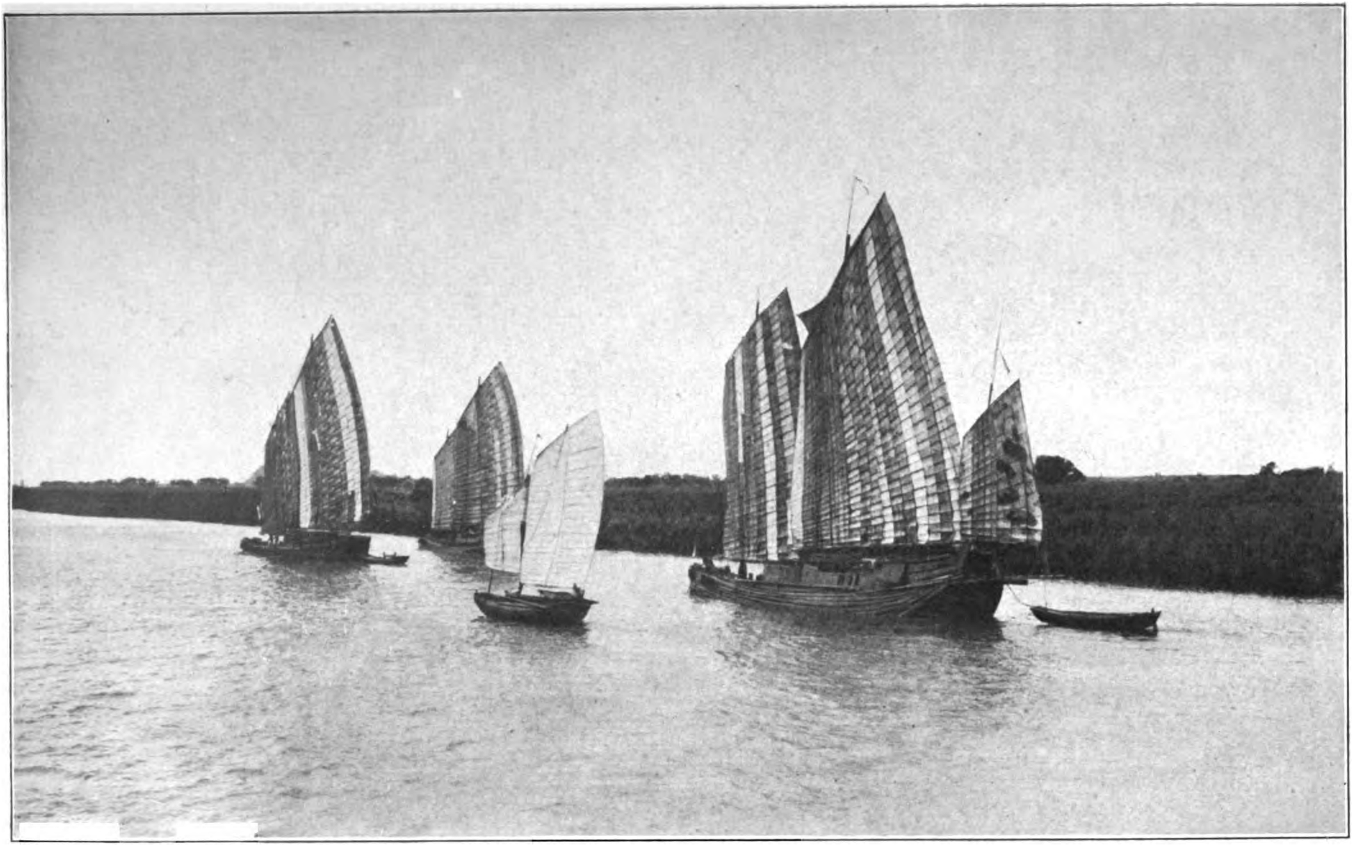
[1] See footnote on p. 84.

The character of the trade on these waterways is limited only by the diversity of the trade of the Province. Besides Chungking other important trade centers situated on these waterways are Chengtu, Kiatingfu, Suifu, Luchow, Hochow, Paoningfu, Wanhsien, and Kweifu.

There are two different taxes levied on goods en route. By the Ch'ang Kuan, or Native Customs, merchandise entering or leaving the Province is taxed unless it is covered by documents issued by the Maritime Customs. This is a specific duty on a nominal basis of 2½ per cent and is collected for the central Government. The other tax, called t'ungchuan, is a provincial tax and is levied at the first barrier that the goods pass. A certificate is given upon payment thereof so as to free the goods from further t'ungchuan levies, but it is understood that these certificates are not always honored. This tax is leviable upon all native and foreign goods not certificated by the Maritime Customs and, according to the regulations governing its collection, upon foreign goods, so certificated, at destination. The practice of collecting it on foreign goods is not uniform, probably because of its evident illegality. This is also a specific tax on a nominal basis of 2½ per cent. At some places lo-ti-shui, a destination tax of variable amount, is also collected.

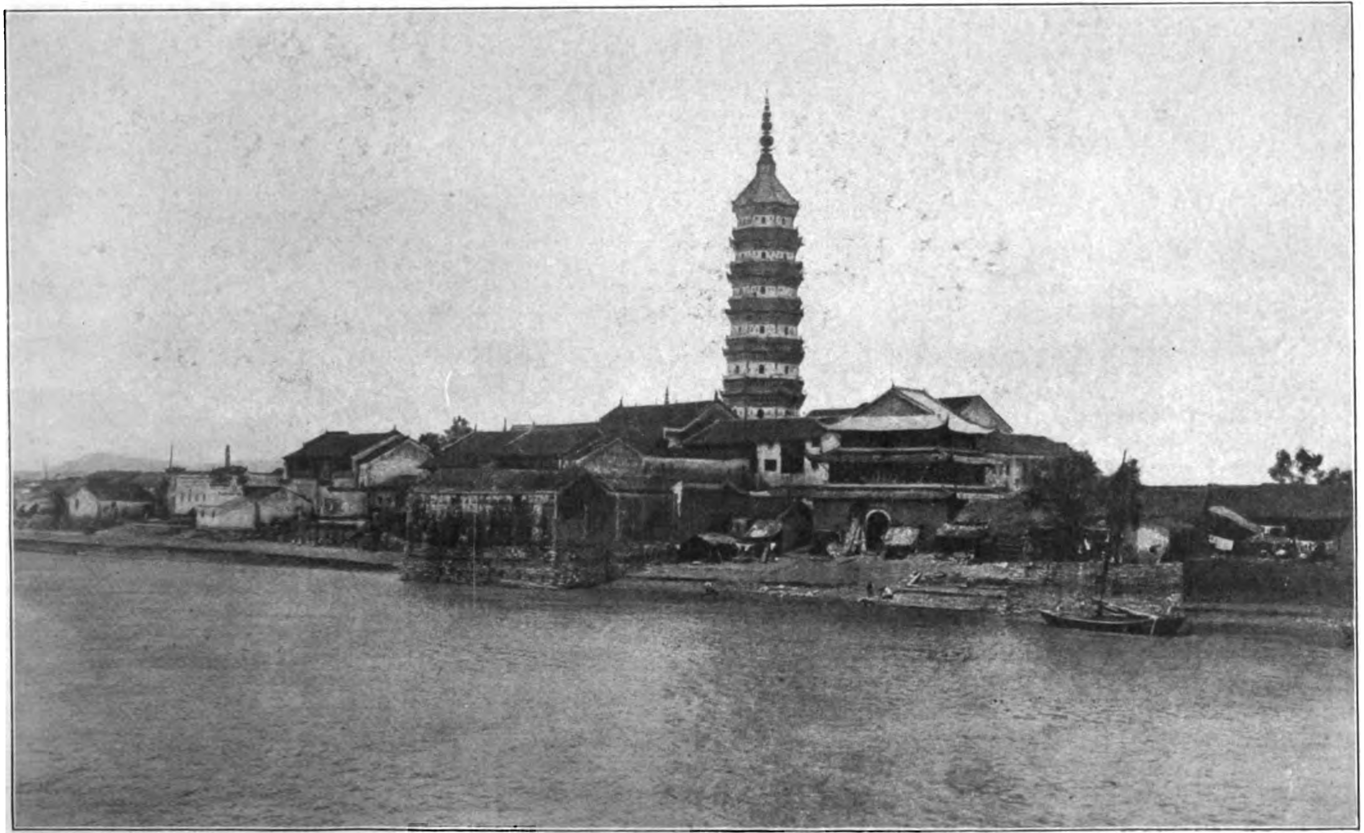
RAILWAYS PLANNED.

There are in Szechwan no railways in operation or under construction. The Szechwan-Hankow and Yamchow-Chungking lines are under agreement for future construction, and there are plans for a line from Yunnan to Suifu or Luchow.



Photograph by E. M. Newman.

FIG. 37.—JUNKS ON YANGTZE RIVER.



Photograph by E. M. Newman.

FIG. 38.—WALLED TOWN, WITH PAGODA, ON YANGTZE RIVER.

SZECHWAN-HANKOW RAILWAY.

The Hukuang Railway loan of 1911, made by the Four Nations Group, composed of American, British, French, and German bankers, provides for the construction of the Szechwan-Hankow Railway. The Ichang-Kweichowfu section, part of which is in Szechwan, was assigned as the American section for construction. The final survey of this line was completed in 1915, but on account of the war construction work was not begun. The length of this section is 132 miles. A preliminary survey of the contemplated extension to Chengtu via Chungking was carried out in 1914 by American engineers from the I-Kwei section.

TATUNG-CHENGTU RAILWAY.

A preliminary contract was signed on August 14, 1913, by representatives of the Société Belge des Chemins de Fer en Chine and the Société Française de Construction et Exploitation de Chemins de Fer en Chine. This railway will be approximately 960 miles long and at Tatung will connect with the Peking-Kalgan Railway.

YAMCHOW-CHUNGKING RAILWAY.

Early in 1914 La Banque Industrielle de Chine entered into an agreement with the Chinese Government for the construction of a railway from Yamchow via Nanning, Pose, and Singyi to Yunnanfu and thence via Weining in Kweichow to Chungking, where it will connect with the extension of the Szechwan-Hankow line. The approximate length of this line is 1,000 miles.

YUNNAN-SZECHWAN RAILWAY.

A survey of the line from Yunnan to Suifu (or Luchow), made by American engineers, was completed in 1911. Its length is about 450 miles. It is undoubtedly this line that is contemplated in the concession of La Banque Industrielle de Chine referred to above.

It will be seen that the above agreements provide for a system of trunk lines in Western China running north and south and another trunk line running east and west paralleling that great artery of commerce, the Yangtze River, and connecting the richest Province in China with the great markets of Hankow and Shanghai. The most urgent and essential line for the needs of this region is very plainly the Hankow-Szechwan Railway.

There are no tramways in the Chungking consular district.

ROADS.

The roads in Szechwan are invariably paved with flagstones, laid crossways. Some important roads are as much as 5 feet wide but usually the roads are narrower. Over the ever-recurring hills in this Province these flagstones are arranged in steps, which, owing to the steep slopes of many hills, make a far more satisfactory road for the traffic than an even-surfaced one. As is to be expected from the nature of the roads, no vehicles are in use. Porterage is the universal means of transportation by land; the trade with Tibet is entirely transported in this way. Pack animals, both ponies and mules, are used to some extent. Transportation by pack animals is slower than by coolies. Traveling is done in sedan chairs, carried by two to four coolies who travel about 30 miles per day.

By reliable "coolie hongs"—establishments providing coolies for labor and transportation purposes—at Chungking, the rate for porterage to Chengtu is now quoted as 10,000 cash, about $6.20 Mex., per coolie carrying a load of 80 catties (about 107 pounds), for the journey, which is 10 days long. At this rate transportation costs about $77 United States currency per ton of 2,240 pounds. The distance is about 300 miles. Chair-bearers receive the same amount. The rate for pack-animal transportation for the same journey is quoted as 90 cash, $0.055 Chungking, per catty (1⅓ pounds avoirdupois), each mule or pony carrying a maximum of 200 catties. At this rate goods are carried the 300 miles for $0.02½ gold per pound or $56 per ton. Transportation rates during recent years have increased considerably. Some hongs quote lower rates, as 9,000 cash per coolie and 80 cash per catty for pack animals, but these establishments are not so reliable and, as a result, difficulties frequently occur on the way. Rates between interior points are undoubtedly less than those quoted herein.

The principal trade routes and routes of travel are the following: (*a*) The "Ta-lu", or Great Road, from Peking via Taiyuanfu, Sianfu, and Hanchungfu, which passes through Paoningfu, Tungchwanfu, Chengtu, Yachow, Tachienlu, Litang, and Batang and thence leads on to Lassa; the section of this road west of Chengtu is the one over which the greater portion of the trade with Tibet is carried. (*b*) The road from Yachow to Yunnan, which passes through the Chienchang Valley and the city of Ningyuanfu. (*c*) The road along the Min River from Chengtu to Suifu. (*d*) The road from Chungking to Chengtu, which passes through Tzechow. (*e*) The road from Chengtu to Wanhsien via Shunchinfu and Suitingfu; this is of considerable commercial significance and will become more important with expansion in the trade of the new port of Wanhsien.

Probably more attention is paid to the upkeep of roads in Szechwan that is usually the case in China. They are generally kept in fair condition and fine bridges are numerous. The district official is responsible for road construction and maintenance, the cost of which is defrayed either by subscriptions of the community or by some public benefactor. The construction of modern roads is not now contemplated, but is a probable future development.

POSTAL FACILITIES.

The Chinese Post Office provides the postal facilities of Szechwan. The report of the Post Office for 1915 gives the total length of postal lines in the Province as 44,108 li, or about 14,700 miles. At the end of that year there were open 113 post offices and suboffices and 523 postal agencies. Mail is carried by courier services, post boats, and steamers. Couriers travel on foot and carry a maximum load of 64 pounds. On most routes they travel day and night with first-class mail. For heavy mail pony pack trains are used to some extent where water transportation is not available.

Since August 1, 1916, when the parcel-post convention between the United States and China went into effect, there have existed parcel-post facilities with the United States. Parcels up to 22 pounds can be sent to Chungking, but for Chengtu and other interior cities the limit is 11 pounds. There are no money-order facilities for foreign countries. The time required for receipt of first-class mail matter at Chungking from New York is between six and seven weeks.

There is one foreign post office in Szechwan, the French Post Office at Chungking. It is neither a parcel-post nor a money-order office.

TELEGRAPHS.

The telegraph service of this Province is furnished by the Chinese Telegraph Administration. There are 36 stations in operation, and lines adding two more are contemplated. There are two lines running east from Chungking into Hupeh Province, two running south into Kweichow Province (one of which is via Luchow), and two to Chengtu, one each via Luchow and Suifu. From Chengtu there is a line running west via Yachow to Batang, with a branch to Ningyuanfu. There is also a line connecting Chengtu with Peking via the Province of Shensi. A line from Hoch'uan (Hochow) to Mienyang (Mienchow) on the Chengtu-Peking line is the one contemplated. Telegraph charges within the Province are at the rate of $0.09 Mex. per word, and to other Provinces $0.18 Mex. per word. The address is charged for.

The materials mostly in use are of German manufacture. Materials are purchased by public tender by the telegraph supply department of the Ministry of Communications at Shanghai.

TELEPHONES.

There are two small official telephone systems in Szechwan. A 50-line exchange for official use only was recently installed at Chungking. The telephones are British Insulated and Helsby Cables Co. The other system is at Chengtu. It is operated by the military authorities, but its use is extended to the public. Part of the system is Swedish-Erricksen. A 200-line exchange of two 100-line Western Electric switchboards was installed in 1913 by Arnhold, Karberg & Co. According to recent reports 343 telephones are now in use. The rate at Chengtu is $5 Mex. per month. At present there is no prospect of extension. The operation of telephones for the use of the general public is a Government enterprise and is reserved to the Ministry of Communications.

NEWSPAPERS.

There are no foreign newspapers printed in Szechwan. Of Chinese journals there are nine printed at Chungking and nine at Chengtu. The following are numbered among the leading newspapers: Chungking—Shang Wu Jih Pao, circulation 600 to 700 copies; Shang Pao, circulation 600 to 700 copies; Chengtu—Kuo Min Kung Pao, circulation about 4,000. The last-mentioned is the only paper printed in this Province that has a daily issue of more than 1,000 copies. All papers have six issues per week. The average annual subscription ranges between $5 and $6 Mex. There are newspapers edited by women at both Chungking and Chengtu; these journals were started during 1916 and are devoted to women's rights and education. At

Chungking the Catholic Mission publishes a weekly paper in Chinese that is not included in the above number.

Advertising rates vary according to the size of the type between 200 and 600 cash for 100 characters, or words, per day. Advertisements by the week, fortnight, and month receive a discount on the above rates of between 10 and 40 per cent, and for longer periods the rates are subject to special arrangement. Double rates are usually charged for outside page advertisements.

Because of the absence of data on the subject, estimates of the percentage of natives able to read vary considerably. According to the opinion of many, less than 5 per cent of the people can read. If the school statistics given above may be considered a reliable guide this estimate is much too high.

PUBLIC WORKS AND SANITATION.

The Chengtu plain, with an area of about 2,400 square miles and a reputed population of 5,000,000, has an irrigation system which, according to Chinese history, dates from the third century before the Christian era. At Kwanhsien the Hsi or Sungpan River debouches from the mountains and divides its waters among the many channels that cross the plain from the northwest to the southeast. Here the streams converge to form the Min River, which empties into the Yangtze at Suifu. These streams have been supplemented by a multitude of canals, whereby an almost perfect distribution of water throughout the whole plain has been effected. Of this system of irrigation Richthofen states that it "is probably not excelled in perfection anywhere."

Certain conservancy work on the Upper Yangtze River with a view to improving navigation is now in progress. In the autumn of 1916, the Ministry of Military Affairs established a bureau for the Szechwan-Hupeh conservancy matters. This bureau has been given a limited amount of money, and thus far its activities have been confined to certain improvement work at several of the worst rapids. Toward the end of 1915 a conservancy board, in which the Maritime Customs was represented, was formed, but thus far it has not functioned. The control of the funds was vested in the Customs. It is possible that this or a similar board may undertake conservancy work later.

There are no foreign settlements in this consular district.

As regards public works and sanitation in the Chinese cities of this Province no advancement is to be noted. The streets are invariably paved with flagstones, are narrow and, with the possible exception of Chengtu, are extremely dirty and plainly bespeak the absence of any sanitary measures. Chungking affords a few electric street lights, but, generally speaking, there is no street lighting of any kind as a municipal undertaking. The city of Chengtu is the exception, as it is provided to a certain extent with kerosene lighting.

The water supply, obtained from rivers and wells, is brought to the houses by coolie carriers. The disposal of sewage depends upon very indifferent drainage arrangements. Fortunately for Chungking, its natural drainage is good and consequently each heavy rain has a very salutary effect. For fire protection hand pumps throwing water 30 or 40 feet are used, the water being obtained from stone pools to be found throughout the cities. These facilities are entirely inadequate, and usually it is necessary to resort to the destruction of buildings in the pathway of the fire in order to get it under control. The universal use of tile roofs and the construction of fire walls restrict the spreading of fires.

In the writer's opinion no noteworthy development will occur until the modernizing influence of railways is felt. However, it is reasonable to anticipate some reforms along these lines at Chengtu and Chungking during the next few years.

PUBLIC-SERVICE COMPANIES.

There are four lighting plants in this Province, located at Chungking, Chengtu, and Luchow.

The Chungking plant was installed by Arnhold, Karberg & Co. The boilers, stokers, superheaters, and feedwater heaters are Babcock & Wilcox products. The two engines, each of 375 break-horsepower, are Belliss & Marcom, Birmingham. The electrical equipment is Allgemeine Electricitäts Gesellschaft, Berlin. The capacity of the plant is 500 kilowatts, produced by two generating units, each of 250 kilowatts. The generating voltage is 440 and the consumer's 220. Distribution is on three-wire system through static balancers. The total lamp capacity of the plant is 16,000 20-watt lamps. The present consumption is about 6,000 lamps. The monthly charge for service is $1.50 Chinese currency (equivalent to Mexican) per 20-watt Tungsten lamp; light is furnished from dusk to dawn. This plant has been in operation about six years and, as a result of neglect, is now in extremely poor condition. It has never been operated profitably (the same being true of the Chengtu plant). Its owners (Chinese) are the Chu Chuan Electric Light Co.

The Chengtu plant is also operated by a Chinese company, the Ch'i Ming Electric Light Co. It was installed by Diederichsen & Co., but some of the machinery was supplied by Arnhold, Karberg & Co. The boiler is a Babcock & Wilcox and the engine a Browett-Lindley, British, of 110 horsepower. The electrical equipment is Allgemeine Electricitäts Gesellschaft, Berlin. The capacity of the plant is 125 kilowatt-volt-amperes, alternating current, of a generating voltage of 3,300, 50 cycles, and a lamp capacity of 5,500 20-watt lamps. The present consumption is about 3,500 lamps. The voltage to consumers is 110. Cost of service is $1.30 Chinese currency per lamp per month. Service is furnished from dusk to midnight.

The other company at Chengtu, the Shang Yeh Electric Light Co., was installed to provide light for the arcade, but it now furnishes a limited service to the general public. The capacity of the plant is 50 kilowatts, and the engine is of 60 horsepower. The machinery is said to be German. About 1,000 lights are now in use.

A small plant was opened on December 4, 1916, at Luchow. It was originally intended for private use but, as an experiment, has been extended for public use. The plant was supplied by the General Electric Co. of China, British. The engine is a Robey & Co. 80-horsepower and the boiler a Marshal. The electrical equipment is General Electric, Birmingham. The plant generates 12 kilowatts and has a voltage of 100. The total lamp capacity is about 500, and 400 lamps are now in use. The cost of the service is $1 Chinese currency per lamp per month. The service is available from dusk to midnight.

Undoubtedly Szechwan Province offers a rich field for the installation of lighting plants. The beginning has not been very propitious, as the present companies are not operating profitably. The Chinese have not yet learned that machinery needs care and much attention to every little detail. For firms obtaining a contract to install a lighting plant it would be advisable to insist upon the employment of a foreign engineer for at least three years. This should be beneficial to both the contracting firm and the lighting company, as the former would prove that such plants if properly operated are profitable investments, thereby increasing its business, and the latter would obtain that experience and familiarity with modern machinery without which it can never operate successfully.

There are no waterworks in this Province. Two years ago there was some talk of installing such a plant at Chungking, but it did not materialize. As with lighting plants, there are prospects of development, but at present there are no systems under contemplation. Much education is necessary to induce the people to carry out such developments, and if American houses want the business it would be advisable for them to assist in the preparation of this vast and rich field. The countries whose merchants are in personal touch with the market will receive the business.

TREATY PORTS AND FOREIGN CONCESSIONS.

Chungking is the only treaty port in the Province. It is situated on a rocky promontory at the juncture of the Chialing River with the Yangtze, about 1,550 statute miles from the mouth of the latter stream. Its estimated population is 460,000. There is a Japanese concession on the south bank of the river below the city, but it has never been developed. There are no restrictions as to foreign residence, foreigners living anywhere in the city and also in the hills on the south bank of the river. Five powers maintain consular establishments in Chungking, namely, France, Germany, Great Britain, Japan, and the United States. France and Great Britain also maintain consulates at Chengtu (the latter a consulate general), while Germany and Japan have offices there that are subsidiary to their Chungking consulates.

As to conditions surrounding foreign trade, it should be remarked that there is very little direct trade between Chungking and foreign countries. Regarding American trade as contrasted with that of other foreign nations it may be said that there are no conditions particularly favorable or unfavorable to it. As in many other places, American trade would be greatly benefited by the establishment of a few American business houses.

Wanhsien, situated on the Yangtze River about half way between Ichang and Chungking, was formally opened to foreign trade on March 16, 1917. It has an estimated population of 150,000 and is the chief city in Szechwan east of Chungking. Its opening to foreign trade will undoubtedly be conducive to trade development in that part of the province. In 1918 the net value of the trade of Wanhsien was $6,664,745, net imports of foreign goods amounting to $958,693, imports of native goods to $2,526,344, and exports to $3,179,708. The principal foreign imports were cotton yarn (1,369,056 pounds, valued at $579,773) and kerosene (561,796 gallons, valued at $230,718).

FINANCE AND BANKING.

The copper cash and its various multiples to the 100-cash piece (a 200-cash piece exists but is no longer minted) and also the dollar currency constitute the minted media of exchange. However, the currency of business is not any of the above currencies but the Szechwan tael, which was established as the uniform tael for the Province in 1908. The Szechwan tael is commonly known as the chiu-ch'i-p'ing, which means that 100 Szechwan taels are equivalent to 97 Kuping taels, the latter being the central-Government tael. All accounts of business houses are kept in the Szechwan tael. It may be stated here that the ratio between the dollar and the tael is fixed at 0.71, but the ratio between silver and copper constantly fluctuates. There are two grades of silver sycee on the Chungking market, known as lao-p'iao and hsin-p'iao. In any transaction the price is quoted according to the grade of silver in which payment is to be made, there being a difference in favor of the latter of about one-fifth of 1 per cent. It may be stated that some years ago the quality of silver on the Chungking market was better than it is to-day.

There are no foreign banks in Szechwan, and consequently the banking arrangements for foreign trade must be made at Shanghai or Hankow. Chinese banks, as is well known, have not yet developed into foreign-exchange banks. In all foreign commercial transactions there is the inevitable exchange between Chungking and Shanghai, which at times has a very marked effect upon the movement of trade.

There is not the same fixity of interest rates among Chinese banks as among foreign. The state of the money market and the supply of silver regulate interest rates. During certain recent months interest rates have been as high as 3 per cent per month but were usually about 1½ per cent. When money is very plentiful the rate may go as low as ¾ per cent per month, which may be considered the minimum. These rates are for short-term loans, from 15 days to 3 months. Three months is invariably the longest duration for loans made by these banks, and if money is desired for a longer period the loan is renewed.

The banks of Chungking, with a few exceptions, are ch'ien-chuang, or large cash shops. The most important phase of their business is the buying and selling of drafts, principally on Shanghai, but also on other cities in China. The financial transactions connected with the import and export trade of this port are handled by these ch'ien-chuang. Lending money for short periods is another important phase of their business. It may be surprising to know that very little money is loaned on security. These bankers will lend in any reasonable amounts to reliable persons of financial standing without any security whatever. When the borrower does not have the full confidence of the lender, security will be asked and also a higher rate of interest. Generally speaking, these banks do not handle mortgages. Again, these banks act as clearing houses on bank settling days, which occur on the first and fifteenth of each month, Chinese calendar.

These Chinese banks are not banks of deposit in the Western acceptance of the term. A deposit with a ch'ien-chuang is in reality a loan for a stated interval at a rate of interest agreed upon. The difference between the bank's borrowing and lending rates in a normal market is at the rate of about 3 per cent per annum, but of course it varies constantly with the demand for silver. Overdrafts, so far as interest is concerned, are treated as short-term loans. As indicated above, short-term loans against real estate as security are very rare and the same is true regarding crops as security. At this port the functions of native banks in native trade are not distinguishable from their functions in foreign trade.

What has been said above does not refer to the Bank of China and the Bank of Communications, which have thus far exerted little influence upon the local money market.

MANUFACTURING AND OTHER INDUSTRIES.

Among the principal industries in Szechwan are silk reeling and weaving, cotton-cloth weaving, the extraction of brine from wells and its evaporation, and paper manufacture.

During the past decade marked development is to be noted in the silk industry. Filature silk was first produced during this period, and this phase of the industry is growing rapidly. Filatures are said to number more than 50; many of these are steam filatures and 4 at least are rereeling filatures. Both Italian and Japanese methods are used, but it is claimed that the latter are preferred. A steady expansion in this industry is expected. The silk-weaving industry is also being developed. Wooden looms are still used exclusively. Chengtu is the chief center, but other silk-producing sections engage in weaving.

The cotton-cloth weaving industry is important. Native looms are found everywhere, but it is in Suining and Tungchwan districts that this industry is most flourishing. During the past few years a noticeable expansion has occurred. Thus far only native looms are used, but it is reasonable to expect that some development along modern lines will soon take place.

The extraction of brine from wells and its evaporation constitute an important industry. This industry has already been discussed under minerals and mining.

The manufacture of paper is a very general industry. The chief centers are Mienchuhsien, Kiungchow, and Luchow. Only native methods are in use, but it is believed that eventually opportunities will exist for the sale of paper-making plants. This Province has an abundance of excellent raw material for paper manufacture. The Lo Li Paper Co., of Chengtu, which started some years ago, is closed.

The preparation of leather and manufacture of leather goods is an industry that may be expected to develop. At present there are six leather factories in Chengtu. The Military Leather Factory is said to be the only one operated with machinery, which is of Japanese manufacture. American machines for sewing are used in all the factories. Saddles, shoes, and all kinds of leather goods are made. This factory is claimed to use about 10,000 hides per year. There are four small leather factories at Chungking.

At Chengtu there is a soap factory—the Hua Mao Soap Co.—in which German and Japanese machinery is used. Three inferior grades of soap are made, and the total output is about 6,000 cases per annum.

There are many match factories in the Province. There is a monopoly for the manufacture of this product. There are six match factories about Chungking, with the operation of two of which Japanese are connected. Only native machinery is used.

Among glass factories there is one at Chungking using Japanese methods. Both glass and fancy glassware are made by this factory. At Chungking there are also two hosiery-knitting factories, each of which is equipped with about 40 hand knitting machines.

At Chengtu there is a Government arsenal for the manufacture of rifles and ammunition, as well as a mint. At Chungking there is a mint for copper coinage only. These plants are fitted with modern machinery. There is a small machine shop in Chengtu.

The industries mentioned above are native. A foreign concern, the Yu Hsin Silk Filature, was established at Chungking during 1915. It is a joint Japanese-Chinese concern. It opened with 120 looms, which have since been increased to 200, and a further expansion of the factory is now being arranged. The present output is estimated at 300 hundredweight (long) per year. There is a Japanese as superintendent.

COMMERCE OF THE PORT: INTRODUCTORY SUMMARY.

The table below gives the total imports and exports, foreign and Chinese, through the Maritime Customs at Chungking during the years 1904, 1913, and 1918:

Imports and exports.	1904	1913	1918
Imports of foreign goods:			
From foreign countries and Hongkong	....	$576,820	$521,952
From Chinese ports	$10,135,848	7,731,339	5,305,844
Total foreign imports	10,135,848	8,308,159	5,827,796
Reexports of foreign goods to Chinese ports	1,272	2,691	50,752
Net total foreign imports	10,134,576	8,305,468	5,777,044
Imports of Chinese products	2,597,687	5,016,892	12,391,952
Reexports of Chinese products to Chinese ports	426	1,723	3,033
Net total Chinese imports	2,597,261	5,015,169	12,388,919
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	....	57,155	247,043
To Chinese ports	7,556,899	8,933,118	17,496,003
Total exports of local origin	7,556,899	8,990,273	17,743,046
Gross value of the trade of the port	20,290,434	22,315,324	35,962,794
Net value of the trade of the port	20,288,736	22,310,910	35,909,009

A few general remarks applicable to both imports and exports should be made here in order to avoid repetition. The trade of Szechwan Province is tributary to Shanghai and Hankow and is largely in Chinese hands. The principal importers, the cotton-goods merchants, engage largely in export trade in order to obtain credits at Shanghai to pay for their purchases and thus avoid a fluctuating and frequently burdensome exchange. The same transportation difficulties handicap both branches of trade. As elsewhere pointed out, west of Ichang junks are the principal commerce carriers, steamers to Chungking being a recent innovation and hauling as yet a very small percentage of the trade. It is chiefly because of the limitations and difficulties surrounding transportation on the Upper Yangtze that the commerce of this Province is handicapped. Lack of banking facilities and other adverse factors there are, but these would to a great extent disappear if safe and cheap transportation facilities were available.

EXPORT TRADE.

The total exports from Chungking increased from $7,556,899 in 1904 to $8,990,273 in 1913 and $17,743,046 in 1918. When it is understood that the year 1904 included an opium export of $2,795,060, a factor which in 1911 disappeared from the trade returns as a result of prohibition, the healthy growth in this branch of trade becomes apparent. In other items, generally speaking, there occurred considerable increases, and, in addition, several important products have been added to the list of exports. Chief among these are grass cloth, intestines, and wheat. Wheat has attained its present importance since the cultivation of the poppy was prohibited. This Province and its commercial tributary territory are rich in products, and, given cheaper transportation facilities and modern methods of production, both the export and the import trade would be vastly increased.

Generally speaking, native products are, in the first place, collected by peddlers and disposed of in the small market towns. They are then brought to market centers or larger towns by dealers, who in turn sell them to agents of Chungking merchants. An abundance of waterways facilitates transportation to Chungking. There are few products, however, as for instance wool, in the trade in which Chungking does not figure prominently. There are no steam packing facilities there, and consequently certain products must be sent to Hankow or Shanghai for final packing.

The principal Chinese exports of local origin for 1904, 1913, and 1918 are shown in the following table:

Articles.	1904		1913	1918	
	Quantity.	Value.	Quantity.[1]	Quantity.	Value.
Bristles....pounds..	1,734,544	$329,159	2,047,360	2,016,672	$1,321,058
Feathers, duck, fowl, etc....do....	492,240	14,393	1,016,176	256,928	30,291
Fungus....do....	792,400	135,377	969,248	713,328	370,023
Grass cloth....do....	....	....	570,304	585,088	922,624
Hemp....do....	1,372,672	63,861	2,447,088	5,003,584	644,777
Hides, cow and buffalo....do....	3,435,712	316,127	3,311,840	2,762,868	436,237
Intestines....do....	....	....	332,976	....	137,394
Leather....do....	149,632	27,081	44,800	85,608	102,853
Medicines....value..	....	671,942	$902,076	....	2,416,944
Musk....pounds..	4,483	678,536	2,980	948	275,584
Nutgalls....do....	1,003,952	165,516	1,114,624	2,036,832	453,906
Opium, native:					
Szechwan....do....	1,252,608	1,898,091	....	....	....
Yunnan....do....	372,288	896,969	....	....	....
Rhubarb....do....	1,141,056	79,718	2,394,672	915,488	117,553
Safflower....do....	14,336	4,121	....	....	....
Silk, raw:					
White—					
Not rereeled and not steam filature....pounds..	1,120	2,833	13,440	8,932	23,200
Rereeled....do....	....	....	....	1,608	7,851
Steam filature....do....	....	....	16,800	14,668	88,526
Yellow—					
Not rereeled and not steam filature....pounds..	705,040	813,665	954,576	851,868	2,048,738
Rereeled....do....	....	....	....	113,200	542,830
Steam filature....do....	....	....	171,920	377,468	2,183,105
Wild....do....	269,696	154,214	77,168	16,408	20,398
Cocoons, refuse....do....	1,772,288	259,094	2,395,120	3,137,332	785,829

[1] Except in the case of medicines, the values for 1913 are not available.

Articles.	1904		1913	1918	
	Quantity.	Value.	Quantity.	Quantity.	Value.
Skins (furs), goat, untanned.......pieces..	797,342	$310,843	1,562,857	1,451,770	$1,687,453
Tallow:					
Animal......................pounds..	164,976	7,084	1,147,888	758,128	70,683
Vegetable......................do....	224,896	11,664	1,212,848	83,216	6,477
Turmeric............................do....	1,931,776	27,991	3,859,296	956,256	44,831
Wax, white.........................do....	990,080	229,040	869,680	1,568,000	921,470
Wheat................................do....	....	....	3,445,792	5,267,480	69,289
Wool, sheep's......................do....	4,153,520	217,091	4,264,624	1,996,736	681,329
All other articles..........................	....	242,459	....	....	1,326,740
Total....................................	....	7,556,899	....	....	17,743,046

The largest and most important export from this Province is silk. Its development is indicated in the above statistical table. The filature industry was started during the past 10 years and is growing rapidly. This export is very largely handled by Chinese. British India and France are large buyers.

As 1904 was an unusual year for bristles, the expansion is really greater than is indicated by the figures for the years under comparison. The variation in prices has been steadily upward. The greatest increase has occurred in the shorter lengths. The bristle season is from February to July.

Feathers have been a growing export, but in consequence of the war their importance has diminished considerably. Germany was ordinarily the largest consumer. The feather season begins in September. Hemp is a growing export and is being more widely cultivated. Some of this fiber is sent to Italy for the manufacture of baskets for wine bottles, but much more is used elsewhere in the manufacture of carpets. Its exportation is entirely in Chinese hands. Prices have varied very little during the past 10 years.

During the past decade hides have steadily continued to be an important export. These must be shipped to Hankow or Shanghai for packing for the foreign market. During the winter and spring is the trade season. Between 1905 and 1913 prices of cow hides increased approximately 50 per cent and a further increase has since been recorded.

Medicines of all kinds have shown a steady increase. These originate principally in Tibet, western Szechwan, and the Kokonor. This export is mostly consumed by the Chinese of other Provinces. Although many of these medicines are unsuitable for foreign trade, some of them, such as licorice, aconite, snakeroot, scullcap, and discorea, are used by foreign pharmacists.

Winter is the trade season for musk. Formerly Germany made large purchases, but during recent years France and other countries have been much larger buyers. The export of musk during the past few years shows a decrease as compared with that of 1904 and previous years, probably because of the manufacture of synthetic musk in Europe. Prices have varied little, but since the beginning of the war have increased somewhat.

Nutgalls have not increased proportionately with the general development in the export trade. This commodity is used for dyeing purposes and the United States is a large consumer of it. Nutgalls are harvested in August and September.

Opium, which was the largest export in 1904, is no longer an article of trade.

Rhubarb is used for medicinal purposes. Pikou in Shensi and Sungpan in Szechwan are the principal market centers. During the late winter and spring it arrives on the Chungking market. Prices in 1906 seem to have been higher than at any time since then—the decrease being no more than about 15 per cent, however.

Safflower was formerly largely cultivated for dyeing purposes and a good deal was exported, but on account of the popularity of aniline dyes its cultivation became restricted to correspond to the demands from the local dyeing industry.

A marked expansion in the exportation of goatskins has been recorded. The market season continues through the cold months, from October to April. Besides goat, other skins are becoming more important, such as cat, rabbit, doe, and raccoon, and it is believed that trade in these commodities is susceptible of considerable expansion.

A very marked expansion has occurred in animal and vegetable tallow (though 1918 registered a sharp decrease as compared with 1917). Russia and Japan are the largest foreign markets for the former and Great Britain and the United States for the latter. The tallow is largely used in the soap industry. During the war a strong demand has existed for use in munitions manufacture. Vegetable tallow is harvested in the autumn.

Turmeric, for dyeing purposes, is used principally in China. Its trade season is from March to July.

White wax, used principally in the manufacture of candles, has increased in importance. Hongkong is the largest importer of this commodity, which is chiefly consumed by the candle industry of Kwangtung Province.

The exportation of sheep's wool has fluctuated. This product originates in western Szechwan and Tibet, where sheep are largely raised. The buying season in the principal wool markets, Tachienlu and Sungpan, is from February to May. Wool is now prepared and packed at Kwanhsien and sent directly to Shanghai. It is there prepared and packed for the foreign market. The United States is a large buyer for use in the carpet industry. This is an inferior quality of wool. Chungking prices for wool have recorded a big increase since 1904.

In 1904 the total export of grass cloth was less than $2,000. It is now one of the principal exports and is rapidly increasing in importance. Grass cloth is manufactured from ramie fiber, of which there are three crops annually. At present very little of the Szechwan product is marketed abroad. Although, as is claimed, its quality is not so fine as that of Swatow, a market for the best grades should be found in the United States. The industry and export are entirely handled by Chinese.

The export of pigs' intestines has fallen off since 1914 because the German market has been cut off. At present the United States and England are buying. The export of this product could be greatly increased. Goats' intestines are not now exported, but, if suitable for the foreign market, they can be found in Szechwan in large quantities.

Wheat is a growing export and is marketed in other parts of China.

Fungus is also exported for Chinese consumption.

In 1918 the only article invoiced at the Chungking consulate for exportation to the United States was silk brocade, valued at $187. In 1917 the declared exports to the United States consisted of $38,312 worth of bristles and $297 worth of silk brocade. In 1913 the only declared export was wool, valued at $18,045.

IMPORT TRADE.

Changes in native customs, such as the short-lived popularity of foreign clothing, have had only a brief effect upon trade. The attitude toward foreign goods may generally be described as indifferent, cheapness in price being the all-important criterion.

As stated elsewhere, imports are purchased chiefly at Shanghai by local Chinese firms. The trade in the hands of foreigners is confined largely to such firms as distribute their own products. Except for the products of three well-known foreign firms, the usual Chinese methods of distribution obtain. Regarding credit, a local firm that occasionally imports states that it invariably demands 25 per cent with order and cash against delivery at Chungking. It has been a practice of some firms to grant three to six months' credit for half the amount of the purchase. The comprador system is generally employed, and exporters say that the services of this middleman are indispensable.

In connection with packing it may be said that large packages are difficult to handle and for that reason all bales of cotton yarn are so packed as to be readily divided into two at Ichang. Goods destined for the interior must frequently be repacked at Chungking. No general directions can be given, as packing varies with the route and mode of transportation.

The following table shows the principal articles of import (net) for the years 1904, 1913, and 1918:

Articles.	1904		1913	1918	
	Quantity.	Value.	Quantity.	Quantity.	Value.
FOREIGN GOODS.					
Braid, cotton and fancy............value..		$6,393	a $32,471	(b)	(b)
Buttons............gross..	246,325	67,986	14,415	28,110	$4,452
Clocks and watches............number..		15,153	11,552	2,291	5,385
Cotton goods:					
Chintzes and plain cotton prints............pieces..	18,259	27,717	12,309	11,976	93,486
Cotton italians, plain and figured .do...	169,900	629,562	192,887	(b)	(b)
Cotton lastings, plain and figured.do...	106,568	257,691	16,010	(b)	(b)
Cotton venetians, plain, colored, and fast black............pieces..			37,720	(b)	(b)
Drills............do....	9,360	25,043	6,445	240	1,340
Printed drills, furnitures, and twills............pieces..	10,053	13,545	506	(b)	(b)
Sheetings............do....	80,004	184,879	22,082	1,710	12,955
Shirtings—					
Gray, plain............do....	447,675	924,724	193,482	30,742	208,708
White, plain............do....	73,738	198,320	225,050	90,896	629,940
Turkey-red cottons and dyed T cloths............do....	28,721	48,553	17,045	4,560	15,826
White irishes............do....	20,934	58,501	1,802	(b)	(b)
Yarn............pounds..	47,282,368	6,205,656	25,882,640	4,067,056	1,443,436
Velvets and velveteens............yards..	415,138	40,402	213,534	35,132	18,666

[a] The fact that the first amount given in this column is an expression of value should not mislead the reader with respect to the figures that follow. These represent *quantities*, except when the dollar sign precedes them. In most instances the values for 1913 are not available.

[b] Figures for 1918 not available.

Articles.	1904		1913	1918	
	Quantity.	Value.	Quantity.	Quantity.	Value.
FOREIGN GOODS—continued.					
Dyes, aniline........................value..		$128,397	$207,377		$9,704
Ginseng, American and Japanese. pounds..	47,508	45,755	27,158	18,274	42,955
Hosiery............................dozen..			37,699	34,928	33,811
Lamps and lamp ware.............value..		7,242	$30,551		33,468
Medicines.............................do....		17,793	$94,158		125,142
Milk, condensed, in tins............dozen..	2,024	2,025	3,570	5,672	12,180
Needles.....................thousands..	344,280	48,223	958,900	31,186	34,414
Oil, kerosene:					
American.....................gallons..	6,360	867	782,850	(a)	(a)
Russian.........................do....	13,660	1,591		(a)	(a)
Seaweed and agar-agar...........pounds..	2,753,632	50,629	3,944,416	2,271,248	53,774
Soap, toilet........................dozen..	104,623	21,657	28,729	(b)	(b)
Soda ash.........................pounds..	916,944	14,235	910,112	(b)	(b)
All other foreign articles..................		1,092,037			2,997,402
Total foreign goods..................		10,134,576			5,777,044
CHINESE GOODS.					
Cotton yarn......................pounds..	11,278,848	1,850,245	17,255,616	22,639,344	10,758,250
Drills.............................pieces..			35,390	40,965	297,137
Medicines..........................value..		112,449	$219,175		285,116
Silk piece goods..................pounds..	75,824	266,032	45,696	18,816	128,305
All other Chinese articles..................		368,535			920,111
Total Chinese goods..................		2,597,261			12,388,919

a The value of all the kerosene imported during 1918 (1,950.230 gallons) was $696,882.
b Figures for 1918 not available.

Among cotton goods, it will be seen that cotton yarn is the most important item. Including native yarn the imports for 1904, 1913, and 1918 were, respectively, 58,561,216, 43,138,256, and 26,706,400 pounds.

Italians and venetians are very popular because of their silky appearance. In the aggregate, piece goods have been adversely affected by unfavorable local conditions. Also, some foreign piece goods have shown a decrease as a result of competition from Chinese goods. Foreign drills, in 1904 entirely American but now largely Japanese, have decreased while native drills have become very important (drills are used for the uniforms of the soldiers). Gray shirtings are suffering a similar fate by reason of the importation of Hupeh shirtings through Native Customs. The importation of these shirtings or sheetings is said to be large. Chintzes enjoy a good demand at present. English goods predominate in all the principal descriptions. American goods are unrepresented.

Cotton braid, principally Japanese, is a growing import.

Cigarettes show an increase, but they have not become popular among the Szechwanese and their importation is now falling off.

Clocks and watches have recorded a decrease. Clocks are chiefly Japanese. Cheapness is the principal criterion for this market. In this line suitable American goods should find a sale.

German aniline dyes were enjoying an increasing demand until the war stopped the supply. German artificial indigo was first imported in quantity in 1913, to be almost doubled the following year.

The ginseng import shows a decrease. In 1904 the import from the United States amounted to 8,533 pounds, as compared with 5,912 pounds, valued at $43,295, in 1916. The bulk of the import is Japanese, but this is in cheaper grades. Hongkong is the principal distribution center for the American article.

Hosiery was not listed as a separate article in 1904. In 1911 the import amounted to 10,606 dozens and in 1914 to 73,209, but since then it has fallen off. Local production is probably the principal cause. Japanese manufactures are the most widely marketed.

Lamps and lamp ware have enjoyed an expanding demand, and with the increasing use of kerosene a larger trade may be expected. At present Japanese and American lamps are principally marketed.

Foreign medicines have recorded a marked increase, in which British and Japanese manufacturers have benefited largely.

Condensed milk has shown an increase, in which American, British, and Swiss products have shared. Milk is becoming more appreciated by Chinese who can afford it and a steady increase may be expected.

Needles were entirely a German import before 1914, and an increasing one, but as a result of the war the Japanese product is now on the market.

American kerosene has increased and will undoubtedly continue to do so. More attention is now being given to the development of this market.

Soda ash, a British product, is being used for cloth bleaching and dyeing purposes and in the manufacture of paper.

Sewing machines, not shown in the table, form a line in which American goods share. A marked increase in imports occurred during 1912 and 1913, but since then the demand has fallen off. In 1913, 1,629 sewing and knitting machines were imported.

The import of metals and woolen goods is unimportant.

Among lines in which American goods might be introduced or enjoy a greater share of the market, the following may be enumerated: Clocks and watches, hosiery, lamps and lamp ware, medicines, enameled ware (basins and bowls), condensed milk, toilet soap, soda ash, and aniline dyes. At present there is a ready market for the last two articles because the supply from the usual sources has not been forthcoming. Generally speaking, in connection with this market it should be remembered that cheapness is a necessary qualification. Therefore toilet soap, enameled ware, etc., must, in cheapness and quality, compare favorably with competing goods. There is also a small market for wire rope, wire nails, and general hardware that should interest American manufacturers.

Information furnished under the heading "Shipping facilities for trade with United States" by the consulate general at Shanghai is applicable for the trade of Chungking.

FACILITIES FOR TRAVEL.

There are no hotels in Chungking at present where foreigners would care to stop. Spring and autumn are the best seasons of the year for visiting Chungking. The intense heat in summer and the absence of steamer transportation in winter, from December to April, are the conditions unfavorable to travel during those periods. There are several steamers on the Ichang-Chungking run. Owing to the absence of suitable hotels tourists usually live on board the steamers, which remain in port from two to four days. For those who must travel in winter it is necessary to charter a native boat, which must be provisioned and furnished. The journey takes from three weeks to a month at that time of the year.

TRADE ORGANIZATIONS IN DISTRICT.

There are two general chambers of commerce in this district, one each at Chengtu and Chungking, and a chamber of commerce in almost every district city (the designation "general" used here only denotes relative importance).

At Chungking there are nine "provincial clubs" and innumerable craft or trade guilds. Every trade and every industry has its guild, such an organization existing even for the beggars on the streets. The power of the local guilds is very great, and the regulations of some of them prescribe severe penalties for their infraction. The chamber of commerce may be likened to a large central guild, with the actual guilds as its branches. When the interests of any guild concern another or the officials, the chamber of commerce acts as the intermediary. There is even a tendency toward invoking its assistance on behalf of individual interests, especially where official action is involved. It has connections with the guilds and "provincial clubs," and its counsel in other than the purely internal matters of these organizations is invariably decisive. It is understood that similar conditions prevail at Chengtu.

There are no foreign-trade organizations in this district.

AMERICAN INTERESTS.

American interests in this district are largely missionary. In 1881 the first American mission—the Methodist Episcopal—was opened at Chungking. Since then a gradual expansion has occurred, and now American mission stations are found in eight different cities in the Province. The missions maintaining stations are the Methodist Episcopal, the American Baptist, the Foreign Christian, the American Bible Society, and the Seventh Day Adventist. These missions are giving much attention to educational and medical work, as has been indicated in another part of this chapter. Their medical personnel includes 14 doctors, and for their work there are 6 hospitals. British missionaries, according to the statistical report for 1915, numbered 408, while Americans numbered 102. The work of the British is conducted along the same lines as that of the American societies. The number of Catholic missionaries in this field is also greater than the American. German missionary interests are relatively very small.

American commercial interests are confined to two importing firms that have established branches in Chungking for the distribution of their own products.

Other American activities are limited to teaching. Two Americans are engaged as teachers in the Government schools at Chengtu. In this particular American interests compare favorably with those of other countries.

The European war has had little effect upon the American trade interests of this district. These interests are confined to kerosene oil and sewing machines, and except in the matter of increased freight rates the effect of the war has not been felt.

The most promising field for American commercial activity is indicated under the next heading.

GENERAL TRADE SUGGESTIONS.

In view of what has already been said, the importance of Shanghai in respect to the trade of Szechwan Province will be appreciated. Generally speaking, American manufacturers should direct their efforts on that port, and they will thus be in touch with the market of this territory. However, along certain lines, which show indications or possibilities of development, direct contact with this market will be advantageous, as encouragement and promotion will be required to overcome the natural hesitancy that invariably surrounds the adoption of new methods. In this chapter some of the lines in which opportunities exist have been pointed out and may be here enumerated, as follows: The installation of electric lighting plants, machinery for flour milling, paper manufacturing, salt wells, cotton cloth and silk weaving, sugarcane and oil expressing plants (for wood-oil nuts, rapeseed, etc.) and possibly waterworks and mining machinery. As there is evidence that much more attention will be paid to this territory by foreign interests than heretofore, American merchants should take such steps as to insure for themselves a commensurate share in this development.

TIBET.

As Tibet is still comparatively an unknown land and is at present of little commercial importance, discussion of it will be confined to a few brief paragraphs.

Tibet proper—that is, not including the Kokonor region—is part of the Chungking consular district. It lies between latitude 28° and 36° north and longitude 79° and 98° east. It is bounded on the north by Sinkiang (Hsinchiang or New Province) and the Kokonor, on the east by the Kokonor, Szechwan, and Yunnan, and on the south and west by India. The area of Tibet, including the Kokonor, is generally given as 463,320 square miles, but by Stanford as 700,000 square miles. Tibet proper comprises the greater portion of this area. The population of the two territorial divisions is estimated at 6,430,000, but by some authorities is thought to be much less. The population is confined chiefly to the river valleys of the east and south.

Tibet is a vast mountain mass. In the north and west there is an immense table-land and on the east and south there are high ranges and deep river valleys. Some of its plains are more than 11,000 feet above sea level, and its ranges are among the highest in the world. There are many salt lakes on the high table-lands. The climate is necessarily varied but is generally very dry and healthful. It is subject to extremes of great cold and heat, and in the southern part much rain and snow fall in season.

Tibet is a dependency of China. Since the revolution of 1911 no Chinese resident commissioner or "amban" has reside at Lassa. At present the relation of Tibet to China is the subject of diplomatic discussion between Great Britain and China. The Dalai Lama and Panshen Lama are the great religious heads of Tibet, as also of Lamaism, and are virtually its rulers. The jurisdiction and influence of the latter are restricted within much narrower limits than those of the former. The country is ruled by petty kings who are under the control of the high lamas.

There is little agriculture. The raising of domestic animals is the principal occupation of the people. Yaks, sheep, goats, horses, etc., are reared in great numbers. The yak is the principal beast of burden, especially over difficult mountains. Wild animals of many species abound and add much to the wealth of the country. Little is definitely known of its mineral wealth, but it is believed to be abundant and varied. Gold and silver and precious stones are known to exist.

The trade between China and Tibet is considerable. Tachienlu in western Szechwan is the chief center of this trade. The principal exports that pass through Tachienlu are wool, skins, furs, musk, deerhorns, medicinal herbs, and gold. Its chief imports are tea, cotton goods, tobacco, candles, and sundries. Some of the articles of export of Chungking are the products of Tibet and the Kokonor. The principal route between China and Tibet is the Chengtu-Tachienlu-Batang-Lassa road.

There are three trading marts in Tibet where foreign trade may be carried on. These have been opened by British treaties and are near the Indian border. They are Gartok in western Tibet and Gyantse and Yatung in southern Tibet. The trade through these marts is inconsiderable.

DAIREN CONSULAR DISTRICT.

By Vice Consul E. R. Dickover.

LOCATION AND AREA.

As one of the results of the Russo-Japanese War, by the terms of the Treaty of Portsmouth, Japan took over the Russian lease of the Liaotung Peninsula, in Southern Manchuria, together with the adjacent islands, and gave the land thus acquired the name of the "Kwantung Leased Territory." This, with the South Manchuria Railway Zone, comprises the Dairen consular district. The territory lies between 38° 41′ and 39° 30′ north latitude (approximately the position of the southern part of the State of New Jersey) and 122° 33′ and 121° 50′ east longitude, and the area is very nearly that of the State of Rhode Island, or 1,220.5 square miles. For the purpose of administration the territory is divided into two districts, named after the seats of administration—the Dairen district, comprising the eastern two-thirds of the Territory and the Ryojun (Port Arthur) district, comprising the western third.

POPULATION.

The population of the Kwantung Leased Territory (according to the census of 1914) was 607,123, distributed among the various nationalities as follows: Japanese, 82,185; Chinese, 524,681; foreigners, 257. The Japanese practically all reside in the cities (Dairen, Port Arthur, and Chinchow), while the Chinese are mostly farmers and laborers, residing in the rural districts. As the Chinese greatly predominate, the population is mostly rural, the percentages being: Rural, 86 per cent; urban, 14 per cent. Although the district has been under cultivation for many centuries the soil is very poor and the density of population is only 42.9 per square mile, rather below that of the whole of Asia, which is 48.02 per square mile, and a trifle more than that of the State of Wisconsin, which was 42.2 per square mile in 1910.

However, the statistics of the population of the Territory are not exact, as there is a large floating population of Chinese laborers, which it is difficult to include in a census.

PHYSICAL FEATURES.

The configuration of the land is much like that of portions of the coast section of southern California. It is hilly, with no high mountains and no broad valleys. The highest mountain is one in the vicinity of Chinchow, which rises 2,210 feet above sea level. There are no large rivers; in fact, the only streams are small creeks that often dry up during the rainless seasons. The soil is very thin and rocky, while the hills are absolutely stripped of all vegetation, except in those few spots where the Japanese have begun reforestation. Because of the lack of vegetation, the hills are everywhere seamed with deep gullies, cut by the sudden flow of water during the rains.

CLIMATE.

The climate of the Kwantung Leased Territory is peculiar to itself, and is only slightly comparable to that of southern Chile. The scarcity of rainfall gives it the semi-arid characteristics of portions of the southwestern States of the United States, but it differs from them in that its northern situation gives it a low temperature during the fall, winter, and spring, as is shown by the following table, which gives the average temperatures (Fahrenheit) for each month for the five years from 1910 to 1914, inclusive: January, 24.1°; February, 28.0°; March, 34.9°; April, 47.7°; May, 59.4°, June, 67.8°; July, 73.6°; August, 75.4°; September, 67.5°; October, 56.1°; November, 40.8°; December, 27.3°. This gives an average temperature for the whole year of 50.2° and seasonal temperatures as follows: Spring, 47.3°; summer, 72.3°; autumn, 54.8°; winter, 26.4°.

The average annual rainfall is small, and comes principally in the summer months. The following shows the average monthly rainfall for the five years from 1910 to 1914, inclusive: January, 0.52 inch; February, 0.31 inch; March, 0.96 inch; April, 0.92 inch; May, 1.25 inches; June, 1.96 inches; July, 6.50 inches; August, 5.60 inches; September, 5.03 inches; October, 1.36 inches; November, 1.54 inches; December, 0.33 inch. The average annual rainfall, therefore, is 26.38 inches, or about that of the coast section of southern California, but it differs in the fact that, while the rainfall in southern California occurs in the winter and spring months, the rainfall in southern Manchuria is almost entirely confined to the four months from June to September, inclusive.

The air of the Territory, because of the scarcity of rainfall, is usually dry, and in the winter, cold and bracing. During the summer, however, there are apt to be hot, muggy days, and when the wind blows strongly from the northwest there are dust storms which at times obscure the sun. As a general thing, however, the climate is preferable to that of southern China, and many foreign residents of Shanghai and Hongkong now spend their summer vacations in Dairen or Port Arthur.

POLITICAL SUBDIVISIONS.

The entire Kwantung Leased Territory is under the jurisdiction of Japan, with a governor general, usually a military officer, appointed by the Emperor of Japan with the consent of the Cabinet. Under the governor general are the heads of the two administrative departments, the civil and the military. The chief of staff (the head of the military department) has sole jurisdiction over the whole of the Territory, but the civil administration (as has been mentioned above) is divided into two districts with a civil administrator at the head of each, both subordinate to the civil governor. The mayors of Port Arthur and Dairen and the village heads (Chinese) of the country districts are directly responsible to their respective civil administrators. The offices of the Kwantung government, the military department, the civil government, and the civil administration of the Port Arthur district are all located at Port Arthur, while the offices of the civil administration of Dairen district are in Dairen.

The civil authorities have jurisdiction over the police, harbors, tramways, railways, schools, parks, etc., while the military authorities control the distribution of troops and erection of fortifications.

EDUCATION.

When the Japanese acquired control of the Leased Territory they found a large number of private Chinese schools in operation, but practically no public schools, and for that reason the percentage of literacy among the grown Chinese is rather low, only the better-class Chinese being able to read and write. Since that time (about 12 years) the Japanese have established 11 primary schools for Japanese children and 7 for Chinese children. In addition, there are two girls' higher schools, one middle school, and one technical college, open to both Chinese and Japanese. These are all maintained by the Kwantung government.

The Chinese children, however, are still educated principally in small private Chinese schools. In 1913 there were 289 of these, with 7,341 pupils. Among the larger private schools are the Port Arthur Language School, the South Manchuria Railway Co.'s Engineering School, and the Dairen Commercial School. There are no foreign schools in the Leased Territory.

The schools being established by the Kwantung government are all the best of their kind, with modern European equipment and trained teachers. New, sanitary buildings are being erected as rapidly as the necessary funds can be obtained, and Dairen and Port Arthur promise to become centers of education for Manchuria.

The hospitals in the Leased Territory are as follows:

Dairen:
- South Manchuria Railway Hospital.
- Lower-Class Women's Hospital.
- Isolation Hospital.
- Twenty-one private hospitals.

Port Arthur:
- Kwantung Government Hospital.
- Lower-Class Women's Hospital.
- Isolation Hospital.
- Two private hospitals.

The South Manchuria Railway Hospital is worthy of exceptional notice. It is a very well-equipped, well-managed institution, with the best Japanese physicians and surgeons in charge of the various departments. With the completion of the new buildings, it is claimed that it is the largest and best hospital in North China.

All equipment and supplies are imported from Japan, for both the schools and the hospitals.

AGRICULTURE.

As has been mentioned before, the configuration of the land and the character of the soil are such that the Leased Territory can never become an important agricultural district. The soil is shallow, rocky, and poor, but can, by careful farming, produce one fairly good field crop per year. The principal crops, with their yield per acre, are as follows: Maize (Indian corn), 15 bushels; kaoliang (a species of millet), 14.9 bushels; soya beans, 4.5 bushels. Maize and kaoliang are planted about the middle of April and harvested at the end of July, while beans are planted about the first of June (the beginning of the rainy season) and harvested during September.

Where the fields are small and rocky, the soil is tilled by hand, large mattocks or hoes being used. Where conditions permit, the soil is plowed with a crooked stick, iron shod, which stirs up the soil for a depth of 3 or 4 inches and is drawn by various combinations of oxen, donkeys, mules, and small Manchurian ponies. A harrow is sometimes attached to the plow, and sometimes the fields are gone over by hand, the larger rocks picked out, and the soil smoothed down. The principal fertilizers are manures and bean cake (the residue after the oil has been pressed from soya beans). The bean cake is dissolved in water and spread over the fields. These fertilizers are used only for maize and kaoliang; beans are alternated yearly with maize or kaoliang and do not require fertilizers. The methods of farming are extremely crude, but the farmers (Chinese) are too poor to invest in modern agricultural implements. The Japanese Government maintains an agricultural experiment station in Dairen, where better methods of farming and new varieties of crops are being tried out, with the purpose of improving the condition of the agricultural classes. Some fruits, especially apples and grapes, have been found to thrive well in this climate, and it is probable that in the future a considerable amount will be produced on areas not suited to field crops.

The farmers, as a rule, do not have sufficient funds to carry them until the next crop can be marketed; consequently they borrow money from the grain and bean brokers on their future crops. As a high rate of interest is necessary on such loans, the farmers are usually heavily in debt.

Stock and sheep raising are large industries in the Leased Territory, as there are considerable tracts of land not suited to farming. According to a recent census, the live stock in the Territory was as follows: Cattle, 30,848; donkeys, 26,743; mules, 12,320; horses, 2,338; pigs, 65,340; sheep and goats, 13,020. The cattle, donkeys, mules, and horses are used in working the farms and for transporting the crops to the markets, and a few are exported to various Chinese ports. The pigs are used for food by the farmers and are usually slaughtered on the farms. The raising of sheep for wool is becoming more important every year.

Soya beans, and the bean oil and bean cake manufactured therefrom, are the principal agricultural products exported from this district. It is impossible to estimate just what proportion of the beans and bean products exported from Dairen originate in the Leased Territory, as the beans are brought down from as far north as Harbin to be shipped at Dairen. The soya beans raised in this district are of four kinds, the yellow soya, the small green soya, the black soya, and the red mungo. They are not considered as edible beans in their natural states. Some of them are exported raw to Japan, to be manufactured either into "soy" (a sauce largely used by the Japanese) or into bean oil (used in making soap and for various other purposes) and bean cake (largely used as fertilizer on rice and sugar-cane fields). However, the greatest proportion of the bean products are manufactured in Dairen and other parts of the Leased

Territory, and the subject will be considered later under "Industries" and "Exports."

MINERALS.

The Kwantung Leased Territory is not a mineral district. There is one ancient gold mine, but it proved unprofitable and has not been worked for many years. An asbestos deposit has been discovered, and is now being worked on a small scale. A large quantity of coal is shipped from Dairen, but it is all mined in or near Fushun, in Manchuria.

COMMUNICATIONS: GENERAL INTRODUCTION.

In considering the subject of communications, the fact that Dairen is the southern terminus of the South Manchuria Railway must be strongly emphasized. The South Manchuria Railway is the "raison d'être" of Dairen and, indeed, of the Kwantung Leased Territory. Before the Russians built the branch of the Trans-Siberian Railway down through Manchuria in their search for an ice-free port, Dairen and Port Arthur did not exist, except as small Chinese fishing villages. The Russians at first made Port Arthur the terminus of the railway, but as the harbor was shallow and tended to silt up, the terminus was shifted to Dairen (then called Dalny). Extensive harbor improvements, such as breakwaters and deep-water docks, were started and after the Russo-Japanese War the Japanese continued the work. At the present time Port Arthur is the seat of government for the Territory, while Dairen has become the commercial center, not only for the Leased Territory, but for a large part of southern Manchuria as well.

There are no internal waterways in the Leased Territory, but there is a large amount of coastwise shipping, as well as ocean-going shipping (treated later under the heading of "Shipping facilities").

The coasting services are as follows:

Dairen-Chefoo-Chemulpo; weekly; one steamer.
Dairen-Tientsin-Antung; twice every 11 days; two steamers.
Dairen-Chefoo; once every 2 days; one steamer.
Dairen-Chefoo-Tsingtau; once every 3 days; two steamers.
Dairen-Pitsuwo; once every 3 days; one steamer.
Dairen-Liushutun; four times per day; one steamer.

These boats are of the 1,000-ton to 2,000-ton class, and there are good passenger accommodations on the larger vessels. The produce carried consists principally of coal, bean cake, cotton goods, flour, matches, and kaoliang. There are also a large number of Chinese junks engaged in the coasting trade, a total of 11,533 sea-going junks having cleared from the port of Dairen during 1917. There are no foreign (European or American) vessels engaged in coastwise traffic.

SOUTH MANCHURIA RAILWAY.

The only railway in the Kwantung Leased Territory is the South Manchuria Railway. This line operates from Dairen and Port Arthur to Kwanchengtze (near Changchun), connecting there with the Chinese Eastern Railway, which in turn connects at Harbin with the Trans-Siberian Railway. The South Manchuria Railway also connects at Mukden with the Peking-Mukden line. The mileage of the main and branch lines is as follows:

	Miles.
Main line:	
From wharf, Dairen, to Kwanchengtze	439. 0
Branch lines:	
From Hunho (near Mukden) to Antung	165. 4
From Choushuitzu to Port Arthur	28. 8
From Tashihkiao to Yingkow (Newchwang)	13. 9
From Suchiatun to Fushun	30. 8
From Yentai to Yentai coal mine	9. 7
Total	687. 6

The main line and all the branches, except the Hunho-Antung Branch, were originally constructed by the Chinese Eastern Railway (Russian) with the Russian gauge of 5 feet 2 inches. During the war, the Japanese army, having gained control over a considerable portion of the line, changed the gauge to 3 feet 6 inches, in order to utilize the Japanese rolling stock sent over from Japan. The line was operated with this gauge by the Japanese Government until the present company assumed control in 1907, when the gauge was widened to the American standard of 4 feet 8½ inches. New rolling stock, purchased principally in America and England, was installed, and the line was double-tracked as far as Suchiatun, a distance of 238 miles.

The rolling stock in 1917 was as follows: Locomotives, 270; freight cars, 3,194; passenger cars, 219; total, 3,683.

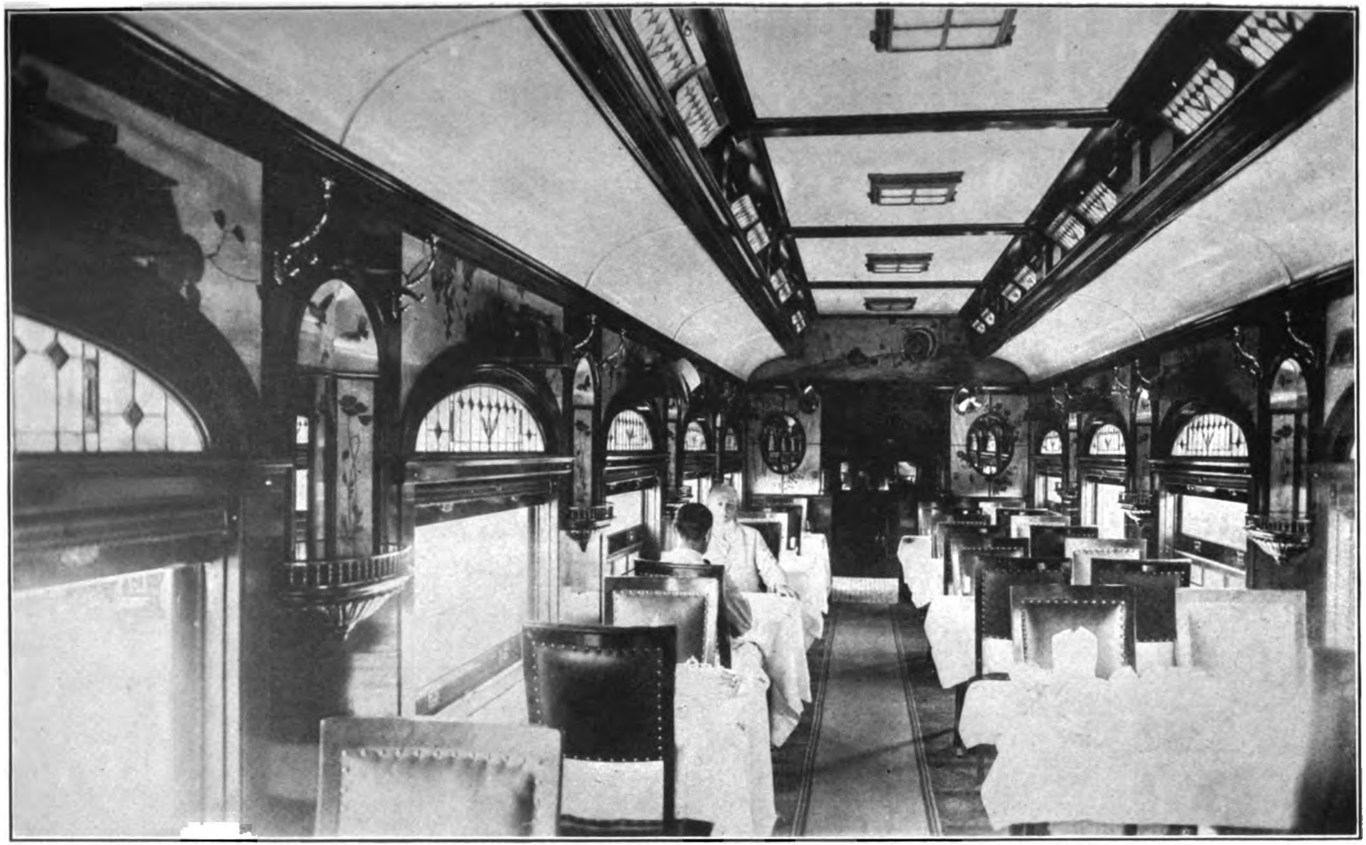
The passenger cars and a large number of the locomotives were wholly or partly built in the United States, while the freight cars are principally of Japanese manufacture. The company has now, however, constructed a large locomotive and car building plant at Shakako, a short distance outside of Dairen, and not only will build all its own cars and locomotives in the future, but proposes to construct rolling stock for the Korean and Chinese lines as well. Therefore, there is little opportunity for American manufacturers to supply the company with locomotives or cars, but there is a considerable market for raw materials, such as high-grade steels, bearing metals, packing, etc. There is considerable market for accessory railway apparatus and supplies, such as lubricators, injectors, air-brake apparatus, wheels, axles, tires, boiler materials, bearing materials, and oils and lubricants. Purchases are usually made by sealed bids, except in special cases.

The passenger fares (except in excursion tickets) are as follows: First class (any train), $0.0302 per mile; second class (express trains), $0.0224 per mile; second class (ordinary trains), $0.0135 per mile; third class (ordinary trains), $0.0090 per mile. Baggage is carried free, up to the following limitations: First class, 132 pounds; second class, 79 pounds; third class, 40 pounds. Excess baggage is charged for at the parcels rate, which varies from $0.38 per 100 pounds for 50 miles, to $1.13 per 100 pounds for 400 miles, depending on the distance carried.

For purposes of adjusting freight rates, goods are classified as follows:

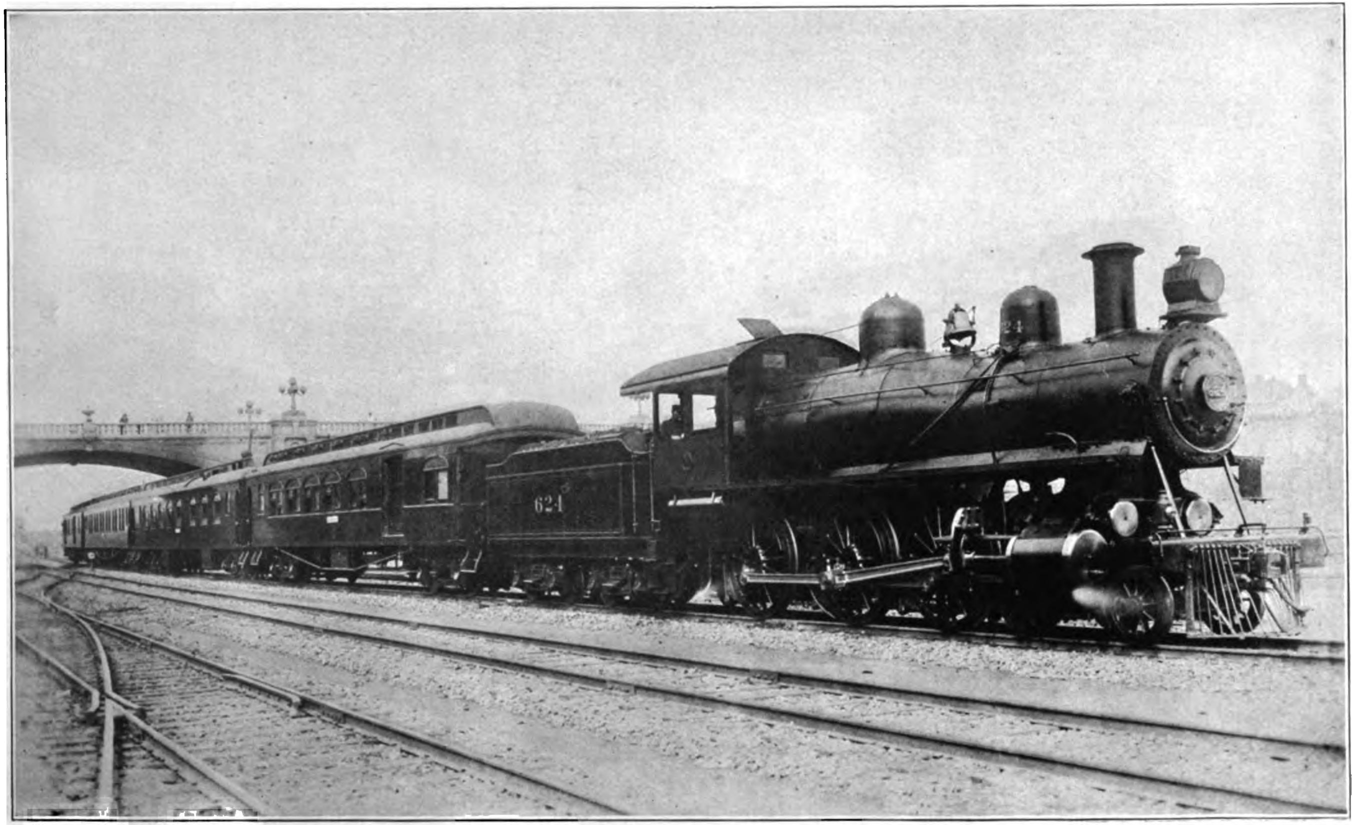
First class.—Fine machinery (bicycles, typewriters, automobiles, etc.), silk and wool clothing, manufactured and raw silk, drugs and chemicals, wines and liquors, objects of art, toys, quicksilver, manufactured furs, mirrors.

Second class.—Arms, weapons, uniforms, beer, manufactured provisions, household furniture and utensils, cotton and leather clothing, cotton cloth and yarn, machinery



Photograph by E. M. Newman.

FIG. 39.—DINING CAR, SOUTH MANCHURIA RAILWAY.



Photograph by E. M. Newman.

FIG. 40.—AMERICAN-BUILT TRAIN IN DAIREN.

and electrical supplies, hides and horns, crude chemicals, brass, antimony, copper, asbestos, paints and dyes, plants, rubber, manufactured lumber, porcelain and glassware, manufactured tobacco.

Third class.—Bean cake, nonalcoholic beverages, vegetables, books, cereals and flours, cloth bags, cordage, raw fibers, dried foodstuffs, earthenware, ornamental stones, iron, steel, tinplate, zinc, lead (partly manufactured), minerals, oils, crude dyes and paints, roofing, salt, crude lumber, leaf tobacco.

Fourth class.—Agricultural implements, bones and bone dust, bran, bricks, lime and cement, fuels (coal, coke, charcoal), grass and straw, earth and sand, fertilizers, fodder, gunny bags, water and ice, raw metals, iron and steel rails, plates and bars, waste paper and rags, unwrought stone.

The rates are as follows:

	First class.	Second class.	Third class.	Fourth class.
Per 100 kin (132 pounds) per mile	$0.002	$0.0017	$0.0012	$0.0008
Per ton per mile (in carload lots)	....	.0200	.0150	.0100

Over-size goods, dangerous goods, and live animals are in separate classes and have special rates.

The South Manchuria Railway is a governmental concern. The total authorized stock is 200,000,000 yen ($99,700,000), of which the Japanese Imperial Government owns 100,000,000 yen ($49,850,000). Of the remainder, 200,000 shares ($9,970,000), which were floated some time ago among private parties, are fully paid up. A further issue of 400,000 shares ($19,940,000) was floated recently, and of this issue 10 per cent has been paid up. Foreigners are not permitted to own stock in the corporation.

The South Manchuria Railway Co.'s estimates for 1919 contain an item of $13,059,190 for enterprises on the main line. Comparing this amount with $3,862,750 set aside for this line in 1918, it would appear that a good deal of construction and repair work is contemplated.

TRAMWAYS.

The South Manchuria Railway also operates the tramway lines in and about Dairen, the only tramway system in the Kwantung Leased Territory. The total length of the lines in Dairen and the suburbs is 24 miles, and the rolling stock is as follows: Passenger cars, 50; freight cars, 10; water sprinkler, 1.

There is no transfer system, but, in place of transfers, tickets good for 30 minutes or one hour, on any line in the city, are issued. These tickets cost 2½ cents for 30 minutes and 3 cents for one hour. The present lines are quite adequate and no extensions are planned.

STREETS AND ROADS.

The streets of Dairen are broad and well paved and compare favorably with the streets of any city of the size in the world. The roads in the country districts, however, are not surfaced and are very poor. The traffic consists principally of heavy Chinese carts, drawn by two or three donkeys, horses, or oxen, hitched tandem. Although the tires of these carts are 4 to 5 inches broad, they cut up the roads badly, especially during the dry seasons. The Kwantung government has direct supervision over the roads and is gradually carrying out plans for a system of broad, macadamized highways. As yet they have progressed only as far as the broadening and grading of a few sections, but improvements will be made as rapidly as the funds become available.

POSTAL FACILITIES.

All post offices in the Kwantung Leased Territory are under the supervision of the Japanese Imperial Post. There is an office in every town or village of any importance, and the service is rapid and efficient. The mails are as follows: To and from Japan (via Mukden and Chosen), daily; to and from Europe (via Siberia), daily; to and from China (via Chinese Eastern Railway), daily; to and from Shanghai (by steamer), twice weekly; to and from Japan (by steamer), twice weekly.

All mails to and from America pass through Japan and depend on the trans-Pacific lines touching the ports of that country. The usual time of transit from New York is from 30 to 35 days. The ordinary letter postage rate is 5 cents gold or 10 sen gold for the first 20 grams and 3 cents gold or 6 sen gold for every additional 20 grams. There is a parcel-post and money-order agreement with the United States, and parcels and money orders may be sent according to the regulations that obtain in the United States.

In addition to the usual postal facilities the Japanese Imperial Post maintains postal savings banks and is planning to engage in life insurance.

TELEGRAPHS.

The telegraph stations are also operated by the Japanese Imperial Post, and are well distributed throughout the Leased Territory, the principal stations being Dairen, Port Arthur, Chinchow, Liushutun, Pulantien, and Pitsuwo. The rates to any point within the Territory are: For Japanese telegrams, 15 "kana," 20 sen (10 cents), and for each additional 5 "kana" 5 sen (2½ cents); for foreign telegrams, per word, 5 sen (2½ cents). The rates to Japan are: For Japanese telegrams, 15 "kana," 30 sen (15 cents), and for each additional 5 "kana" 5 sen (2½ cents); for foreign telegrams, 5 words, 40 sen (20 cents), and for each additional word 5 sen (2½ cents).

The rate for cablegrams to or from America is the same as that to Japan proper, or $1.33 per word (to New York). There are no direct cables with America, but two cables connect Dairen with Chefoo, in China, and Saseho, in Kyushu (Japan).

TELEPHONES.

The telephone system in the Kwantung Leased Territory is owned and operated by the communications department of the Kwantung government. The number of telephones in each city and the annual rates are as follows: Dairen, 1,560, $42; Port Arthur, 317, $36; Liushutun, 18, $24; Chinchow, 12, $24.

The department also operates, in the same system, 2,143 telephones in the cities along the South Manchuria Railway, but as these are properly in the Mukden and Antung consular districts, they are not included in the above list.

The system used is the usual one, with Japanese "central" girls. A subscriber must pay about $50 to have his telephone installed and a number alloted him.

Practically all telephone and telegraph material and instruments are imported from Japan.

NEWSPAPERS.

The only newspapers in the Leased Territory are those published in Dairen, as follows:

Newspapers.	Language.	Approximate circulation.	Advertising rates.		
			Space.	Rate per day.	Rate per month.
Manshu Nichi-Nichi Shimbun.	Japanese	10,000	1 line	From $0.25 to $1.25, depending on type and position.	Large discounts made for term contracts.
Ryoto Shimpo	do	10,000	do	do	Do.
Manchuria Daily News	English	2,000	1 inch	$0.50	$2.10.
Taito Nippo	Chinese	2,000			

Practically all Japanese men, and the majority of Japanese women, in Dairen, are able to read. The percentage of Chinese illiterates in the district is not known, but is estimated to be about 50 per cent.

PUBLIC WORKS AND SANITATION.

The conditions in the Chinese cities and towns in the Kwantung Leased Territory are much the same as they are at any place in China. The streets are narrow and ill-kept and there are no sewer or water systems. In the foreign cities of Dairen and Port Arthur, however, the conditions are quite the reverse. The streets are broad, tree-lined, and very well paved. The pavement usually consists of a macadam base of crushed stone, with a surface of fine stone or of fine stone mixed with coal-tar, well rolled down with heavy steam rollers. At night there is an insufficiency of public lights, but as each residence is required to maintain a light above the doorway, the lack of large lights is not noticeable. Water and electric light connections are made with every residence and business building. There is a sewage system (single), but it is used to carry away only waste water. Night soil is removed by carts and used as a fertilizer on the fields. The Kwantung government maintains fire brigades at both Dairen and Port Arthur, with steam engines, hook-and-ladder companies, and chemical wagons. At Dairen there is also an efficient fire brigade maintained by the South Manchuria Railway Co.

The only electric light and power plant in Dairen is owned and operated by the South Manchuria Railway Co. and, like the railway, is a semi-governmental organization. The plant is operated by steam, and current is supplied for lights, street railways, and factories. The machinery is principally German, and consequently the voltages differ from those ordinarily used in the United States. The total capacity of the plant is 4,500 kilowatts, alternating current, and 400 kilowatts, direct current. The alternating current is 25-cycle and is adapted to three-phase motors at the following voltages: 10 horsepower, 100 volts; 15 horsepower, 200 volts; 50 horsepower and over, 2,000 volts.

The direct current is supplied to motors at from 230 to 250 volts.

The price for current varies from $0.10 per kilowatt hour, for one kilowatt hour per month, to $0.025 per kilowatt hour, if 200 kilowatt hours or more are contracted for per month.

The charges for lighting current (alternating) are $0.10 per kilowatt hour, with a minimum of $0.15 per light per month, irrespective of the size of the light.

The Kwantung government operates a small steam electric plant at Port Arthur, for the purpose, principally, of supplying current for lights in the government buildings, barracks, and city residences. As this current is not used to any extent for industrial purposes, details will be omitted. No extensions or improvements are planned for either of these plants.

The waterworks of Dairen, owned and operated by the Kwantung government, have been, hitherto, sadly inadequate for the uses of the rapidly growing city. During the dry seasons, water is turned into the pipes only 12 hours out of the day. The plant is situated on the Holan River, about 3¼ miles west of Dairen. Water is pumped from the river during the rainy seasons and from wells sunk to the bedrock in the river bed during the dry season. Before passing into the pipes, the water is allowed to settle in a tank containing 4,488,000 gallons, from which it passes through a sand-filter of 860,640 gallons capacity. From the filter the water is pumped into two reservoirs, 193 feet above sea level, with a combined capacity of 1,612,800 gallons. The water is then carried by gravity to Dairen. In 1914 a water famine threatened the city and extensions of the waterworks were planned, which, it is estimated, will supply enough water for a city of 150,000 people, or about double the present population. The extensions are to consist of a large concrete dam (forming a reservoir of 1,149,318,000 gallons, and to cost $210,000) and the necessary pipe lines and pumping plants. The dam has been under construction, and was expected to be finished by 1919.

The rate for water is $0.05 per cubic meter (264.17 gallons), with a minimum charge of $0.10 per month per faucet.

TREATY PORTS AND FOREIGN CONCESSIONS.

Dairen and Port Arthur are free ports, and foreigners have the right of residence and of trading at any place in the Leased Territory. The declared policy of the Japanese Government is to make South Manchuria a great commercial and industrial center, with equal opportunities for all nations. In pursuance of this policy, there are no preferential railway rates, customs charges, or land or income taxes.

There are, in Dairen, three consulates—American, British, and Russian. The British consulate is a large, well-built structure owned by the British Government, situated in the Central Circle, in the heart of the city. The American consulate is in a rented building situated on Echigo-cho.

As is natural, a large majority of the business houses in Dairen are Japanese. Of foreign firms, there are nine English, two American, one Greek, and two Russian. The American houses are branch offices, managed by British and Japanese subjects. There are, at the present time, no American business men located in Dairen, and no American general export and import houses. This is, of course, a great drawback to American trade, and the fact that American cotton goods and American flour have lost their former predominant position in Manchuria is partly due to the fact that there are no Americans on the ground to press their sale.

FINANCE AND BANKING.

The currency in use in the Kwantung Leased Territory consists of gold and silver yen notes, issued by governmental and private banks. The principal issues are Bank of Japan gold yen notes, Yokohama Specie Bank gold yen notes, Bank of Chosen gold yen notes, and Yokohama Specie Bank silver yen notes.

These notes are all issued in denominations of 100 yen, 10 yen, 5 yen, and 1 yen. In addition, the silver, nickel, and copper coins of Japan and the small silver and copper coins of China are in circulation. Transactions between merchants in Dairen and merchants in Japan are usually carried on in gold yen, while transactions between Dairen merchants and Chinese merchants are in silver yen. Market prices in Dairen are quoted in silver yen, but valuations in the Chinese Maritime Customs are made in the Haikwan tael and are usually converted into silver yen for the convenience of the importers. The present extraordinarily high value of the silver-basis currency is due to the high price of silver. The violent fluctuations in the value of the silver currency offer the chief difficulty to business transactions with Chinese merchants in the Dairen district. The ability of the Chinese to purchase depends largely on the value of their money, and foreign merchants there are often confronted with long periods of inaction because of a fall in the value of the silver currency.

Bank interest rates are not fixed, but, like call loans in American cities, depend on the demand for money. The usual rates, however, are as follows: Accounts in gold yen—Fixed deposits, 4.5 to 6 per cent per anum; current accounts, 1.825 to 2.92 per cent per annum. Accounts in silver yen—Fixed deposits, 4 to 5 per cent per annum; current accounts, 1.825 to 2.19 per cent per annum. The interest on current accounts is calculated on daily balances. Overdrafts are charged at the rate of from 7.3 to 14.6 per cent per annum, on daily balances. The rates of interest on loans depend on the demand for money and on the character of the security, or the personal credit of the borrower, but they usually are from 7 to 15 per cent per annum.

The banks in the Kwantung Leased Territory are:

Yokohama Specie Bank (Japanese).
Hongkong & Shanghai Banking Corporation (British).
Russo-Asiatic Bank (Russian).
Shoryu-Ginko (Japanese).
Chosen-Ginko (Japanese).
Dairen-Ginko (Japanese).
Chuoku-Ginko (Chinese).
Lungkou-Ginko (Japanese).

The first two banks listed have branches in the United States and are prepared to negotiate, directly, all drafts and bills of exchange drawn between the two countries. The other banks also undertake bills of exchange on the United States, through their correspondents in Yokohama and San Francisco or Seattle, though their business is usually confined to Manchuria or other parts of China. There are no small Chinese banks doing business among the farmers, in the Kwantung Territory.

The International Banking Corporation (American) has in contemplation the establishment of a branch at Dairen.

MANUFACTURING AND OTHER INDUSTRIES.

The products of South Manchuria are essentially agricultural and mineral, and the industries of the Kwantung Leased Territory are necessarily restricted to the refining of these crude products. The most important industries are, therefore, the manufacture of bean oil and bean cake, "soy" brewing, and salt and cement manufacturing. These industries have all sprung up within the past 14 years, since the Japanese occupation of the Territory. Previous to that time a small amount of bean oil was extracted by Chinese, with crude machinery, but its production on a large scale, with modern power-machinery, has been developed by the Japanese since 1906.

Bean-oil and bean-cake manufacturing affords the most promising industry in South Manchuria. The oil extracted from the soya bean has been in use for many centuries by the Chinese for food and for lighting purposes, but it was not well known in Occidental countries until 1908, when a trial shipment of the beans was sent to England. The value of the bean oil, as a substitute for cotton-seed and linseed oil, in soap making and for lubricating, was quickly recognized, and the export of beans and, more recently, of bean oil and bean cake is growing rapidly. The cake is used for fodder for cattle and as a fertilizer.

The Chinese still operate 42 small bean mills for the production of bean oil and bean cake. Their combined capital amounted to $633,942 and the total output was $3, 301, 224, in 1914. While some of their products are sold directly to merchants in China, the greatest part is sold through Japanese and foreign commission merchants in Dairen.

The principal Japanese industries, with their capitalization and output at the end of 1914, were:

Industries.	Number of mills.	Capitalization.	Output.
Bean oil and cake	4	$675,468	$1,470,261
Cement	1	498,500	278,163
Bricks	7	132,850	58,513
Soy	4	28,913	62,398
Soaps (bean oil)	3	15,454	41,813
Rice polishing	1	49,850	49,850
Bone dust	1	8,973	35,892
Tiles	1	26,421	11,398
Salt	2	1,058,626	185,741
Dockyard	1	4,985,000	49,850
Ironworks	4	16,949	64,805
Ice	1	29,910	24,514
Cakes	1	9,970	39,880

The bean oil and bean cake, soy, soap, cement, and bone dust are manufactured chiefly for export. Bean oil and bean cake find their markets all over the world, while the soy, soap, cement, and bone dust trade is confined principally to the Far East. The beans used are usually produced in South Manchuria, though during recent years some soya beans have been shipped to Dairen from as far as Harbin. Soy (a salty sauce largely used by Chinese and Japanese) is also made from certain varieties of the Manchurian soya bean. Bean oil is also the basis of the soap produced by the factories listed above.

A new process of bean-oil extraction by solution in benzine was recently tried out by the South Manchuria Railway Co., but was not a complete success. The mill has, however, been taken over by a Japanese capitalist, who expects, by greatly enlarging the mill and increasing the output, to make it a paying undertaking.

The salt industry has grown largely within the past few years, and recently the three small producing companies were combined under the name of the Japan Salt Manufacturing Co. The process used is that of evaporation of the sea water by the sun. There are two factories for refining the salt, which is nearly all used locally for preserving fish.

In addition to the industries mentioned above, the South Manchuria Railway Co. has built and is now operating an extensive iron-working, car and locomotive building, and machinery-manufacturing plant at Shakako, a short distance outside of Darien. The plant is capitalized at $3,006,370 and the output in 1914 was $1,218-616; 2,311 men (Japanese and Chinese) are employed in the shops, and a model city has been erected for their use. The company has undertaken to manufacture, besides railway equipment, all sorts of agricultural and industrial machinery.

An industry which is at present neglected in the Leased Territory, but which will undoubtedly become important in the future, is that of silk spinning. About 4,500,000,000 wild silk cocoons are gathered annually in Manchuria, and at the present time these are shipped principally to Antung, Chefoo, and other Chinese ports. Experiments are now being made regarding the best methods of weaving and dyeing this silk, and if it is found practicable, experimental factories will be started.

COMMERCE OF THE PORT: INTRODUCTORY SUMMARY.

The table below gives the total imports and exports, foreign and Chinese, through the port of Dairen during the years 1908, 1913, and 1918:

Imports and exports.	1908	1913	1918
Imports of foreign goods:			
From foreign countries and Hongkong	$11,569,109	$21,325,289	$79,906,694
From Chinese ports	1,133,214	2,816,390	10,515,978
Total foreign imports	12,702,323	24,141,679	90,422,672
Reexports of foreign goods:			
To foreign countries and Hongkong	201,845	376,343	4,695,338
To Chinese ports	86,929	2,192,917	3,743,960
Total foreign reexports	288,774	2,569,260	8,439,298
Net total foreign imports	12,413,549	21,572,419	81,983,374
Imports of Chinese products	923,585	3,349,825	28,639,417

Imports and exports.	1908	1913	1918
Reexports of Chinese products:			
To foreign countries and Hongkong		$195,565	$10,244,088
To Chinese ports		18,711	154,614
Total Chinese reexports		214,276	10,398,702
Net total Chinese imports	$923,585	3,135,549	13,231,715
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	4,934,094	22,073,788	86,360,366
To Chinese ports	3,406,457	6,899,637	16,252,825
Total exports of local origin	8,340,551	28,973,425	102,613,191
Gross value of the trade of the port	21,966,459	56,464,929	216,666,280
Net value of the trade of the port	21,677,685	53,681,393	197,828,280

EXPORT TRADE.

As is evident from the table, the exports of the Kwantung Leased Territory have grown hugely during the Japanese administration—that is, since 1905. The opening of the country to industrial development, the extension of railway and steamship facilities, the establishment of banks and modern produce exchanges, and the growing importance of the bean-oil and bean-cake industries have been the principal contributing factors. The South Manchuria Railway offers excellent inducements for shippers from all of Manchuria to send out their produce via Dairen, while the five steamship lines with 14 vessels, having Dairen as a port of call, furnish means for distributing the produce to all parts of the world. Ocean-going vessels can enter the deep-water docks, and freight is easily and quickly handled. The only drawbacks to the export trade consist of the Chinese Maritime Customs export tax on goods originating in the Chinese territory of Manchuria, and the constantly fluctuating value of the silver yen and the Chinese coins.

Native products, such as beans, kaoliang, sesame seed, ginseng, maize, and wild silk, are bought in by Japanese or Chinese brokers (who often have liens on the crops), are collected at the various railway stations along the South Manchuria Railway and are forwarded to Dairen, where they are stored in warehouses until such time as they may be shipped.

Bean oil and bean cake are now stored and financed under what is called the "mixed storage" system. The South Manchuria Railway Co. provides warehouses and tanks, in which the oil and cake are placed as rapidly as produced. The producer (either Chinese or Japanese) gets a certificate of deposit for the amount of oil or cake placed in the general storage, and this certificate may be sold outright or may be used as collateral for loans from the banks. In this way the bean mills are enabled to run continuously on small capital and do not have a large amount of money tied up in produce awaiting shipment. As the oil is of a standard grade and the cakes all of a certain weight, the system has been quite successful. The only drawback so far has been found in the fact that cakes which lie in storage for some time before shipment lose several pounds in weight and therefore cause a considerable loss to the railway company.

The principal articles of export (not including reexports) to foreign countries and Chinese ports, with quantities and values, according to the Chinese Maritime Customs Returns (the only accurate tables of statistics), are shown in the following table for the years 1908, 1913, and 1918:

Articles.	1908		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Bean cake..............tons..	210,472	$2,182,335	563,966	$12,428,335	977,539	$32,187,236
Bean oil..................do....	3,906	196,397	38,714	3,093,778	137,521	27,119,645
Beans....................do....	220,377	3,776,397	165,216	4,592,255	371,561	16,562,872
Cement...................do....	....	....	19,525	195,055	11,111	198,834
Coal......................do....	9,821	29,699	1,003,054	3,036,605	602,961	3,956,349
Hemp seed...............do....	....	....	16,822	357,105	3,860	151,964
Kaoliang.................do....	....	....	26,615	444,346	58,507	1,926,442
Millet.....................do....	....	....	48,276	1,375,517	7,797	341,851
Perilla Nankinensis....do....	....	....	5,080	184,312	6,033	431,880
Sesame...................do....	2,026	80,651	2,236	178,225	494	43,357
Silk:						
Cocoons, wild....pounds..	1,538,800	93,063	5,872,667	337,257	12,191,733	1,881,140
Raw, wild..........do....	1,360,933	1,714,713	1,106,400	1,280,680	1,147,333	3,582,835
Soap.......................tons..	....	....	382	2,622	....	19,970
Tobacco, leaf............do....	139	9,117	837	102,449	84	19,725
All other articles..........	....	258,179	....	1,364,884	....	14,189,091
Total....................	....	8,340,551	....	28,973,425	....	102,613,191

The following table shows, by quantity and value, the articles invoiced at the Dairen consulate for exportation to the United States and the Philippine Islands during the calendar years 1917 and 1918:

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value.
TO UNITED STATES.				
Bristles..............................pounds..	3,200	$3,075	....	....
Castor oil................................do....	442,500	66,556	1,247,000	$298,932
Castor seed.............bushels of 50 pounds..	51,368	126,892	....	....
Furs, assorted.........................pieces..	243,327	128,171	....	....
Hempseed oil.........................pounds..	....	....	1,222,550	187,352
Horse mane..............................do....	....	....	46,594	11,451
Horse tail (hair)..........................do....	31,834	23,123	....	....
Kaoliang (sorghum)......................do....	2,000,000	31,231	....	....
Peanut oil..................................do....	46,200	6,886	1,439,111	221,072
Peanuts.....................................do....	50,000	3,527	....	....
Perilla oil...................................do....	....	....	415,800	77,186
Sheep intestines..........................do....	1,620	1,200	....	....
Skin, tiger.................................piece..	1	137	....	....
Soya bean cake.........................pounds..	2,240,000	31,763	....	....
Soya bean oil..............................do....	198,534,626	19,740,641	257,863,427	36,496,060
Soya beans.................................do....	34,011,520	1,024,460	....	....
Sulphate of ammonia....................do....	11,200	629	....	....
White beans............bushels of 60 pounds..	....	....	1,667	9,347
Total..	....	21,189,191	....	37,301,400
TO PHILIPPINE ISLANDS.				
Coal......................................tons..	48,910	239,778	41,590	218,517
Muriatic acid..........................pounds..	....	....	28,800	1,914
Red beans..............bushels of 60 pounds..	....	....	983	1,167
Soy, Japanese.........................gallons..	....	....	648	216
Sulphate of ammonia.................pounds..	....	....	49,280	5,793
Sulphuric acid.............................do....	....	....	160,000	6,238
Vermicelli, Chinese......................do....	....	....	19,733	852
Total..	....	239,778	....	234,697

In 1913, the last normal year before the beginning of the war, the declared exports to the United States from Dairen were: Bean oil, 5,925,000 pounds, valued at $334,689; hempseed, 870,534 pounds, valued at $20,629; kaoliang, $4,332; maize, $3,451; perilla seeds, 4,670 pounds, valued at $149; total, $363,250. Exports to the Philippines were: Cement, $1,247; coal, 54,670 tons, valued at $209,032; total, $210,279.

Beans are sold by the picul (132.27 pounds) and are packed in gunny or cloth bags, containing about 200 pounds each. The yellow soya and the white-eye soya are the principal beans exported, and no distinction is made in the grade. The beans are gathered in September, hulled at the farm, and carted to the railway stations, usually during the winter months, when the roads are frozen hard. At Dairen they are either manufactured into bean oil and bean cake, or are shipped to other countries for the same purpose.

At Dairen there is a bean exchange, like the wheat exchange in Chicago, where beans, bean oil, and bean cake are dealt in, either as "spot" deals or "futures." The price of beans varies yearly, according to the crop and the market.

Bean oil is sold by the picul, and is packed in cases containing two 5-gallon tins (like kerosene oil), in drums containing various amounts up to 750 gallons, and in barrels. There is but one standard grade. The oil is used as a substitute for cottonseed oil and linseed oil, and is especially useful in soap making. There is a process (as yet in the experimental stage) for hardening the oil by the addition of a hydrogen compound, the hardened oil to be used in place of wax or paraffin for candle making. The bean mills usually run throughout the year, unless there is no demand for oil or the supply of beans runs short, when they close during the summer months. Bean oil has shown a tendency to increase in price in recent years, as a result of the increased demand.

The trade in bean oil with the United States has grown rapidly. In consequence of a short cottonseed-oil crop in 1915, American manufacturers turned to bean oil as a substitute, and in 1916 two cargo steamers, loaded almost entirely with bean oil and linseed, left Dairen direct for America—the first cases of the kind in the history of the port. In 1918 Dairen shipped to the United States more than $36,000,000 worth of bean oil.

Bean cake is sold by the piece, and is usually not packed for export, the cakes being sufficiently firm to stand shipment unpacked. Each cake weighs 61.3 pounds, as it comes from the mill, but is likely to lose a few pounds by evaporation of the water before it reaches its destination. The cake is an excellent fertilizer for rice and sugar-cane fields, and is largely used for this purpose throughout Japan and Taiwan (Formosa). The cake is dissolved in water and spread on the field in a liquid state. The price of bean cake has not shown any marked tendency to rise or fall during the past decade, though considerable variations are experienced in different years, as a result of the changing demand among the Japanese farmers, according to their ability to purchase.

When the benzine process of oil extraction is used, the residue, instead of being cakes, is a bean meal. This is said to be an excellent fodder for cattle, and a considerable trade may be developed in this article.

Coal, mined at Fushun, near Mukden, is exported principally to Moji, in Japan, and to the Philippine Islands. The trade in coal depends largely on the supply of vessels to carry it, and during the war, because of the scarcity of bottoms and the consequent high freight rates, the trade fell off considerably.

The cereals, such as maize, kaoliang, and millet, are exported almost entirely to Chinese ports. They are sold by the picul, and the price varies greatly, depending on the demand in China and the size of the crop in Manchuria.

Wild silk is principally exported to Chefoo and Antung. This so-called wild silk is silk from wild cocoons, which have been pierced by the escaping moths. It is used in the manufacture of "tussah" or "pongee" silk.

IMPORT TRADE.

Imports from foreign countries into the Kwantung Leased Territory, though by no means keeping pace with the exports, nevertheless show a notable growth, as is evidenced by the following figures: 1908, $11,569,109; 1909, $7,637,487; 1910, $11,968,441; 1911, $17,047,449; 1912, $19,381,972; 1913, $21,325,289; 1914, $20,195,204; 1915, $15,217,657; 1916, $27,630,596; 1917, $62,936,457; 1918, $79,906,694.

These imports, in 1917, came from the following countries: Japan (including Formosa and Chosen), 80 per cent; Russia (Pacific ports), 3⅓ per cent; United States (including Philippines), 9 per cent; Great Britain (including Hongkong), 5⅓ per cent; other countries, 2⅓ per cent.

The principal factors causing the increase in the import trade are (1) the improvement of distribution facilities, and (2) the increasing consumption of foreign goods by the Chinese. In addition to the extensive improvement in railway facilities, the Japanese merchants have established resident selling and distributing agencies in every city and town of South Manchuria, and have been reasonably successful in placing their wares with Chinese merchants. The Manchurian Chinese are very conservative, but they are gradually learning to use foreign goods. The falling off in the import trade during 1915 is attributable to a variety of causes, the most important being the low price of silver at that time, the depression in the building trade, and the Chinese attitude toward certain foreign goods during 1915.

Goods destined for the interior of Manchuria can be unloaded at the Dairen docks, placed there upon freight cars, and sent directly to the nearest station on any of the railway lines of the South Manchuria Railway. Goods billed to stations on the Chinese Eastern Railway or the Peking-Mukden Line must be transshipped at Changchun or at Mukden. Extra charges are made for transshipment. The extra charges, per 500 pounds, for goods billed to stations other than South Manchuria Railway stations are as follows:

Unloading from vessel	$0.0450
Station charges at Dairen	.1000
Loading into cars at Dairen	.0286
Transshipment at junctions	.0571
Unloading from cars	.0143
Incidental charges	.0357
Total	.2807

These charges vary somewhat, depending on the class of the goods and the quantity in which they are shipped.

The larger Japanese firms are willing to establish credits in the United States against orders, and will accept goods f. o. b. the point of origin. Smaller Japanese and Chinese merchants, however, usually require prices quoted c. i. f. Dairen or Kobe, with 30 or 60 days' time. The usual procedure is to draw on the consignee for the agreed amount, the draft accompanying the shipping documents. The comprador system is not ordinarily used by Japanese firms, though foreign firms still generally employ compradors.

As it is usually necessary for goods to be transported from the railway points to their ultimate destinations in springless Chinese carts, merchandise that is liable to breakage or can be damaged in any other way should be carefully packed in strong boxes.

The principal articles of import from foreign countries, with their quantities and values, are shown in the table below. Cotton goods, flour, machinery, kerosene oil, tobacco, and wax are the most important imports as regards American trade. As a large part of these goods are imported through Japanese jobbers in Yokohama and Kobe, it is difficult to state what percentages come from the various countries.

Articles.	1908		1913		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Cigarettes, cigars, and tobacco, leaf and prepared		$253,970		$350,415		$2,420,220
Cotton goods		681,078		6,595,787		14,562,096
Flour....tons	9,042	367,327	34,912	1,476,568	(a)	(a)
Gunny bags....number	1,176,571	73,658	4,404,265	338,080	13,676,344	2,154,002
Iron and steel....tons	9,059	477,801	25,292	1,248,575	64,215	11,277,748
Machinery		386,497		387,655		2,647,461
Matches....gross	176,727	30,194	1,846,596	301,496	1,238,161	450,975
Oil (kerosene)....gallons	361,099	30,775	6,430,215	538,575	5,085,320	1,616,331
Opium....pounds			8,892	90,308	37,081	477,646
Rice....tons	14,469	656,320	15,338	853,578	16,084	1,439,098
Sugar....do	1,574	76,670	10,603	616,291	58,456	7,169,701
Wax, paraffin....do					38	8,146
All other articles		8,534,819		8,527,961		35,683,270
Total		11,569,109		21,325,289		79,906,694

a Figures do not appear in Maritime Customs Returns.

American cotton goods at one time dominated the Manchurian market, but at present, because of the keen competition of Japanese and English goods, American cloth has been nearly driven off the market. The trade in the better class of cotton cloth might be recaptured by the American dealers, but it would be necessary to have resident agents scattered throughout Manchuria. American flour, like cotton cloth, has practically disappeared from the Manchurian market. This is attributed to the fact that the price of flour in the United States has risen greatly, as a result of the demand in Europe, and consequently inferior Chinese flour has occupied the market.

Iron and steel and machinery imports from the United States have maintained their positions. The large iron works erected by the South Manchuria Railway Co. at Shakako, near Dairen, is now prepared to build all sorts of machinery and in the future will probably cut into the American trade seriously. However, by close attention to the demand and by careful bidding, American machinery manufacturers should be able to maintain an interest in the market. The kerosene-oil and paraffin-wax trade is practically controlled in Manchuria, as in all China, by one American company. In the tobacco and cigarette trade there is strong competition between the To-a Tobacco Co. (a subsidiary of the Japanese Imperial Tobacco Monopoly Bureau) and the British-American Tobacco Co., a semi-American concern. The To-a Co. now controls the market for low-grade, cheap cigarettes, made of Japanese and American tobacco mixed, such as are smoked by the coolies, but the British-American Co. still maintains its supremacy in the trade in high-grade cigarettes, cigars, and tobacco.

Upon written application, accompanied by the shipping documents, the South Manchuria Railway Co. will undertake to pass imports through the Chinese Maritime Customs. In order to facilitate this, the following suggestions will be of value:

(1) Cases and packages should be numbered, the numbers to serve as guides to the entries in the invoice.

(2) Miscellaneous articles, in cases, should be described separately and completely, with quantities and value.

(3) Handkerchiefs, towels, etc., should have the kinds and quantities, either by the dozen or roll, mentioned, together with their widths and lengths. Drills, calicoes, etc., should have the weights per roll given in pounds.

(4) Goods composed of cotton and wool, or silk and cotton, mixed, should have the respective percentages of each mentioned.

(5) Liquors in casks should be given in gallons, and liquors in bottles should be given in dozens, with the quantity per bottle.

(6) Canned goods should have the contents, value, and weight of each can given, together with the total number of cans.

It should be stated in the application that all matters relating to the customs procedure are intrusted to the railway company on the owner's responsibility.

In order to obtain a proper share in the trade of the Kwantung Leased Territory, it is necessary for American manufacturers to have agents there who will be able to push properly the sale of the goods. The sale of American goods has been greatly handicapped in the past by the fact that there is not one American general exporting and importing concern in the Leased Territory. There are several British and hundreds of Japanese firms, and, as a result, American goods are not only being crowded out of the market whenever British or Japanese articles can be substituted, but the jobbing trade is now largely in the hands of the Japanese. It is almost absolutely necessary to have selling agents, preferably Americans, on the spot, in order to regain or retain our trade in cotton goods, flour, and machinery.

SHIPPING FACILITIES.

The harbor of Dairen, in the Bay of Talien, is a semi-artificial one, well protected by stone breakwaters. Within the breakwaters are quays, owned and operated by the South Manchuria Railway Co., with a berthing space of 5,470 feet and a depth of from 24 to 30 feet, capable of accommodating 15 vessels of from 2,000 to 5,000 tons each. Five hundred and forty feet of the east quay is used as a coaling station, and three vessels of 2,000 tons each can be coaled simultaneously. Coaling is done by coolie labor, and has been found satisfactory and cheap. A new quay was completed in 1917, adding 1,495 feet of quay line. Loading and unloading is usually done by coolie labor, though there are large power cranes for heavy work, capable of handling pieces of from 25 to 50 tons weight. There is one dry dock, owned by the Kawasaki Dockyard Co., with a length of 430 feet, a breadth of 52 feet, and a depth of 25 feet, capable of accommodating vessels up to 5,000 tons.

Warehouses are situated on the wharf, and the railway has tracks laid alongside the warehouses, so that goods may be moved directly from the ships to the cars. The warehouses have a floor space of 1,114,000 square feet, and are capable of storing 130,000 tons of cargo at a time.

The harbor dues are as follows:

Vessels of not more than 1,000 tons	$7.50
Vessels of not more than 1,500 tons	12.50
Vessels of not more than 3,000 tons	20.00
Vessels of not more than 5,000 tons	27.50
Vessels of more than 5,000 tons	32.50

These fees include pilotage dues. The regulations require vessels of over 1,000 tons to pick up a pilot on entering the breakwater.

Port Arthur possesses a deep-water quay, but as the harbor was closed to merchant ships until 1910, all commerce was diverted to Dairen, and at present it is practically used only by Japanese warships as a naval base, except for a few Chinese junks that carry supplies to the native residents.

The steamship lines with ocean-going vessels calling regularly at Dairen are as follows:

Osaka Shosen Kaisha:
    Dairen-Kobe (via Moji); twice a week; four vessels.
    Dairen-Nagasaki (via Korean ports); monthly; one vessel.
    Tientsin-Takao (Formosa) (via Dairen and Chinese ports); thrice a month; three vessels.
Nippon Yusen Kaisha:
    Newchwang (China)-Yokohama (via Dairen, Tientsin, Chemulpo, Kobe); thrice a month; three vessels.
South Manchuria Railway Co.:
    Dairen-Shanghai (via Tsingtau); twice a week; two vessels.

Before the war, the Hamburg-American Line operated two vessels between Shanghai and Dairen, via Tsingtau. It is not known whether this line will again be operated after the war.

In addition to the services listed above, passenger and freight vessels from the following lines occasionally call at the port: Ocean Steamship Co., China Navigation Co., Indo-China Steam Navigation Co., Glen Line, Shire Line, Royal Mail Steam Packet Co., Indra Line, and Bucknall Steamship Co. Altogether, 3,394 steamers, with a total tonnage of 3,490,446, entered and cleared from the port of Dairen in 1917. There were also 22,984 sea-going junks (Chinese) and 539 sailing vessels (foreign style) entered and cleared in 1917.

As will be noticed, there are no American steamship lines represented in the above lists. It is therefore necessary for the American shipper to send his cargo to Yokohama or Kobe and have it transshipped there to one of the Japanese lines to be forwarded to Dairen, unless, of course, a full cargo can be made up and sent directly to Dairen by a tramp steamer.

The war had a serious effect upon the shipping trade of Dairen. The withdrawal of the English and American lines of steamers from the Pacific trade and the utilization of the larger part of the tramp steamers in the munitions-carrying trade caused many of the boats that had previously visited Dairen to be put on the more profitable trans-Pacific and European trade routes. At the same time, freight rates increased so heavily that it did not pay to ship the comparatively low-priced beans and bean cake. As a result, at one time the amount of bean cake piled up on the wharves at Dairen awaiting shipment was so great that the warehouses could not contain it all, and immense quantities were stored under tarpaulins and improvised shelters. The regular boats, however, have been taking full cargoes out every trip, and at present the congestion is relieved.

The principal shipping and forwarding agents in Dairen are:

Osaka Shosen Kaisha, Oyama-dori.
Mitsui Bussan Kaisha, Yamagata-dori.
Maruki Shokai, Kambu-dori.
Yamaguchi Unyu Koshi, Kambu-dori.
Dairen Kisen Kaisha, Yamagata-dori.

FACILITIES FOR TRAVEL.

The principal foreign-style hotel in Dairen is the Yamato Hotel, under the management of the South Manchuria Railway. It is a first-class hotel in every respect, with all modern improvements, including hot and cold running water in the rooms, attached bathrooms (if desired), elevators, roof-gardens, etc. The cuisine is good and the rates are reasonable. Rooms cost from 2.75 yen ($1.37) per day up, while the rates for table d'hôte meals are: Breakfast, 1 yen ($0.50); luncheon, 1.50 yen ($0.75); dinner, 1.75 yen ($0.87). Monthly rates are from 135 yen ($67.50) to 165 yen ($82.50), including room and meals.

Other hotels in Dairen include two small Russian hotels and one large Japanese-style hotel, the Ryoto.

The South Manchuria Railway also maintains a hotel in Port Arthur, also called the Yamato Hotel, which, though much smaller than the hotel in Dairen and without modern improvements, is nevertheless quite comfortable. There are also comfortable hotels and furnished bungalows in the summer resorts of Hoshigaura (Star Beach), near Dairen; Rokotan, also near Dairen; and Golden Beach, near Port Arthur. The hotel and bungalows at Hoshigaura are also under the management of the South Manchuria Railway, and rates may be had upon application.

The best seasons of the year in Dairen and the surrounding country are, as might be expected, the late spring and early autumn. Many residents of South China, however, are now spending the summer at Dairen and the surrounding seaside resorts. While some hot days are experienced, there is, as a rule, a refreshing sea breeze at the beaches.

The passenger accommodations on the South Manchuria trains are generally good. Before the war three fast express trains weekly were operated between Dairen and Changchun, composed only of first and second class sleepers and dining cars. At present, this train runs only once a week, on Thursdays. There are also two daily trains between Dairen and Changchun, one of which carries sleepers. Connections are made at Mukden with the Chosen-Manchuria Express trains, which run thrice weekly, leaving Mukden on Tuesday, Friday, and Saturday, and Antung on Sunday, Wednesday, and Thursday. These trains connect at Antung with the Chosen Railway trains running to Fusan, where boats for Shimonoseki await the passengers. In short, the Japanese railway authorities have arranged through express train services between Tokyo and Dairen or Changchun, so that passengers need to purchase but one ticket and can have their baggage checked through to their destination.

The steamship lines offering the best passenger accommodations are the Osaka Shosen Kaisha's Kobe-Dairen line and the railway company's Shanghai-Dairen line. The Kobe-Dairen steamers are of 2,500 to 5,000 tons, and offer good cabins and European food. The Shanghai-Dairen steamers are the *Sakaki Maru*, turbine-driven, 3,876 tons, and the *Kobe Maru*, 2,877 tons. European cabins and European food are offered on both steamers. The smaller boats of the coasting lines have passenger accommodations and can furnish foreign food if wanted.

Visitors to the Leased Territory should not plan to arrive before May, as spring is usually late in coming and green leaves do not appear before that time. It is well to bring some warm clothing, as there are chilly days even in May and June. Hunting, golf, and tennis are to be had, so the visitor fond of these sports should bring his paraphernalia.

TRADE ORGANIZATIONS.

The largest and most powerful trade organization in the Leased Territory is the Dairen Chamber of Commerce. The purpose of the organization is, like that of all chambers of commerce, to promote the trade of the district. It receives an annual subsidy from the Kwantung government to aid in paying expenses, and has rented rooms and a paid secretary. The membership is composed of the most influential Japanese business and professional men of Dairen. There are no foreign members.

The foreign merchants and bankers of Dairen are organized into a Foreign Board of Trade. The objects of this organization "are (1) to promote the general welfare of commerce, (2) to collect information on all points of interest to the mercantile commodity, (3) to represent, as the organ of the foreign mercantile community, its interests in every way, and to receive references and arbitrate upon matters connected with trade or manufactures at the request of those interested."

The Dairen Staple Products Exchange is an organization corresponding to produce exchanges in the United States. Staple products, such as beans, bean oil, bean cake, kaoliang, maize, hemp, seed, etc., are quoted, and only licensed brokers, by the payment of a monthly fee, are allowed to trade on the floor of the exchange. Both "spot" deals and "futures" are allowed. The daily prices set by this exchange are adopted as the standard for the whole of the Leased Territory and parts of South Manchuria. The members of the exchange are principally Japanese.

There is also a Chinese Guild in Dairen, composed of the principal Chinese merchants of the city. Its purposes and functions correspond to those of the Japanese Chamber of Commerce.

AMERICAN INTERESTS.

American interests have never been large in South Manchuria or the Liaotung Peninsula. In fact, were it not for two great events of recent years, namely, the Russo-Japanese War of 1904–05 and the pneumonic plague of 1911, this section of China would perhaps hardly be known to the average American. For some reason, American missionaries have never regarded the Liaotung Peninsula as a worth-while field for their endeavors. A large part of Manchuria has been closed to foreign trade until recent years, and, when it was opened, the Russians first and then the Japanese regarded it as their particular "sphere of influence," with the result that American general trade has not become firmly established there. When the South Manchuria Railway Co. was widening the gauge of its lines, between 1907 and 1914, and replacing the worn-out locomotives and cars with new rolling stock, a large part of the new equipment was purchased in America. The importation of these, combined with the trade in cotton goods and flour, gave the United States a goodly share of the trade of the Leased Territory, temporarily, but it has fallen off, proportionately, to a considerable extent in recent years.

There are, at present, only three missionary institutions in the Kwantung Leased Territory—a branch of the Young Men's Christian Association, a Danish mission, and the local Salvation Army Corps. Of the three, the Young Men's Christian Association probably exerts the most influence. There are two young Americans (the only American residents of the Territory, except the consul) who conduct the various educational and athletic classes. The association is housed in a large building, with a well-equipped gymnasium, bowling alleys, bathrooms, barber shop, four classrooms, reading room, parlor, library, two dining rooms, kitchen, and a dormitory of 24 bedrooms. The members of the association are principally Japanese, either students in the various schools and colleges or clerks in the mercantile houses.

The local Salvation Army Corps maintains a group of buildings in Dairen for rescue and relief work. They comprise a rescue home for women, a home for boy waifs, and a home for girl waifs and infants, and a fourth building containing a kitchen and bathrooms. The Salvation Army in Dairen is entirely managed by Japanese, and has been quite successful in its work.

The Danish mission is located in the Chinese section of Dairen. Its efforts are confined to religious work among the Chinese.

In addition to the three large institutions mentioned above, there are three small branches of the Japanese Presbyterian and Congregational Churches, two in Dairen and one in Port Arthur. These churches are presided over by Japanese pastors, occasionally assisted by traveling American missionaries.

The commercial interests of America in the Kwantung Leased Territory have chiefly to do with the importation of petroleum products, cotton cloth, flour, and machinery. There are at present in Dairen branches of three American firms, engaged, respectively, in the importation of petroleum products, tools and machinery, and sewing machines. In contrast to this there are eight British firms, engaged in general trade, and hundreds of Japanese firms. There are also several Japanese banks, a British bank, and a Russian bank, but no American bank. Several firms are agents for British steamship lines, but no American steamship lines are represented. From the above facts it can be seen that American business interests are, comparatively, not well represented in Dairen.

Of the total trade of the port with foreign countries, Japan has 72 per cent, Great Britain (including Hongkong) 7 per cent, Russia 4 per cent, and the United States 3 per cent. Inasmuch as the United States is in a position to supply cheaply and abundantly just the commodities that are needed, this 3 per cent seems rather small.

The most promising fields for American endeavor in the Leased Territory undoubtedly are those of general importing and exporting. Manchuria wants cotton cloth, flour, and machinery, and America is now buying large quantities of bean oil. These articles are now handled through Japanese or British jobbing firms and are carried on Japanese or British vessels. A reliable American house, corresponding to some of the old-established British general trading firms, might find in Dairen a promising field for growth.

TRADE SUGGESTIONS.

The varieties of cotton cloth most in demand in the Kwantung Leased Territory and South Manchuria are:

Plain gray sheetings, over 11 pounds per bolt of 40 yards.
Plain gray shirtings, over 11 pounds per bolt of 40 yards.
Plain white shirtings.
Drills, over 12¾ pounds per bolt of 40 yards.
Jeans, in 30 or 40 yard bolts.
Plain fast-black and colored italians.
Plain fast-black and colored venetians.
Figured poplins.
Japanese cotton cloth.
Imitation native cotton cloth (machine-made), gray or dyed, 18 inches by 20 yards.

White wheat flour of all grades is used, but the largest demand is for the cheaper grades. Flour is usually sold by the sack. The principal machinery imports consist of bean-mill machinery, railway equipment, spinning machines, and sewing and knitting machines. The largest items of iron and steel imports are nails, bars, pipes, sheets (plain and galvanized), and tin plate. There is a large import of gunny and cotton bags, used for packing beans, but these are usually imported from British India and Japan. There has been a steady market for building materials, such as structural steel, steel lath, and window glass, and a considerable amount has been imported from America, but Japanese window-glass manufacturers are now competing strongly and it will be necessary for American manufacturers to quote low prices in order to retain the trade.

Bean oil is now finding a considerable market in the United States, but it has been suggested that it would be more profitable for American cottonseed-oil and corn-oil manufacturers to import the raw beans and express the oil themselves during the seasons when their mills are usually idle. This would reduce their overhead expenses by keeping the mills in continual operation and would, moreover, keep the profit of milling in America. The residue (bean cake) is, moreover, a valuable fertilizer and cattle food and could be sold at a profit. At the present time the high freight rates across the Pacific prevent the shipment to America.

FOOCHOW CONSULAR DISTRICT.

By Consul Albert W. Pontius.

LOCATION AND AREA.

The Foochow consular district is located in Fukien, a Province on the coast of South China. It is situated in latitude 25° to 28° north and longitude 116° to 120° east. The location of this Province is similar to that of Florida in the United States.

The area of Fukien Province is 46,332 square miles, the Foochow consular district embracing about two-thirds of this area. In size, this district corresponds to South Carolina.

POPULATION.

The population of the district is roughly estimated at from 16,000,000 to 17,000,000. It is one of the most populous districts in China, averaging more than 500 inhabitants per square mile. Of the total population, it is estimated that not more than 7 per cent live in the cities. The one large city is Foochow, having a population of about 650,000. The total population of the district approaches that of the States of New York and Pennsylvania.

PHYSICAL FEATURES.

The district is a mountainous country, a series of chains running parallel to the sea. The summits of these chains generally exceed 3,000 feet, and in the north they even attain an elevation of 9,000 feet. The district has an extensive coast line, with numerous bays and fine harbors, and the well-cultivated soil produces good crops.

CLIMATE.

The climate is semitropical in the eastern part of the district, where the thermometer rarely falls below 32°. In the northwestern part, the climate is temperate and even very cold during winter. The annual rainfall during 1915 was 41.58 inches. The climate around Foochow itself is mild and delightful for about nine months of the year, but in the summer it is rather trying, the range of the thermometer then being from 74° to 98° F.

POLITICAL SUBDIVISIONS.

Foochow is the provincial seat of Fukien Province. The chief administrative officers are the civil and military heads, the governor and military general. All foreign intercourse is usually conducted with the local special commissioner of foreign affairs, the latter intermediary of communication having proved quite satisfactory during recent years. The country is divided into hsien or districts, each district presided over by a magistrate, and direct communication with the latter official is also had by the foreign consuls when desired.

EDUCATION.

During the past decade the attendance at the girls' schools in this district has increased 50 per cent and that at the boys' schools 20 per cent. Many of the teachers employed are returned students from foreign countries, and most of the girls' schools are conducted by missionary societies. The percentage of literature in Foochow itself is not more than 25 per cent, while in the interior the percentage falls as low as 10 per cent.

The student of a Chinese school pays an annual tuition ranging from $4 to $14, exclusive of the cost of books and boarding. The Government expends annually in this district the sum of $220,000 in its support of Government and private schools. The curriculum of these schools is prepared by the Ministry of Education and is based on the Japanese educational system. Inspectors are sent from time to time by the Government to the different schools in order to encourage the advancement of educational work.

Most of the students of the mission primary schools pay only 47 per cent of the cost of education, the remainder being provided by the mission concerned. In the case of girl students, the cost of education is borne almost entirely by mission funds.

The Chinese maintain in the Foochow consular district 2 normal schools, 2 law schools, 3 middle schools, 1 industrial school, 1 technical school, 1 commercial school, 1 sericulture school, 1 agricultural school, and 250 primary schools. The foreign missionary and educational institutions represented in this district are the Y. M. C. A., the American Methodist Episcopal Mission, the American Board Mission, the Church Missionary Society (British), and the Dominican Spanish Mission. The foreign institutions maintain 1 medical school, 1 theological college, 1 union college (for higher courses), 5 colleges, 16 hospitals, and 601 schools of all grades. The Fukien Union University, of Foochow, is about to erect a million-dollar group of buildings.

Hospital equipment and supplies are not used extensively in this district; neither is there a large demand for school supplies.

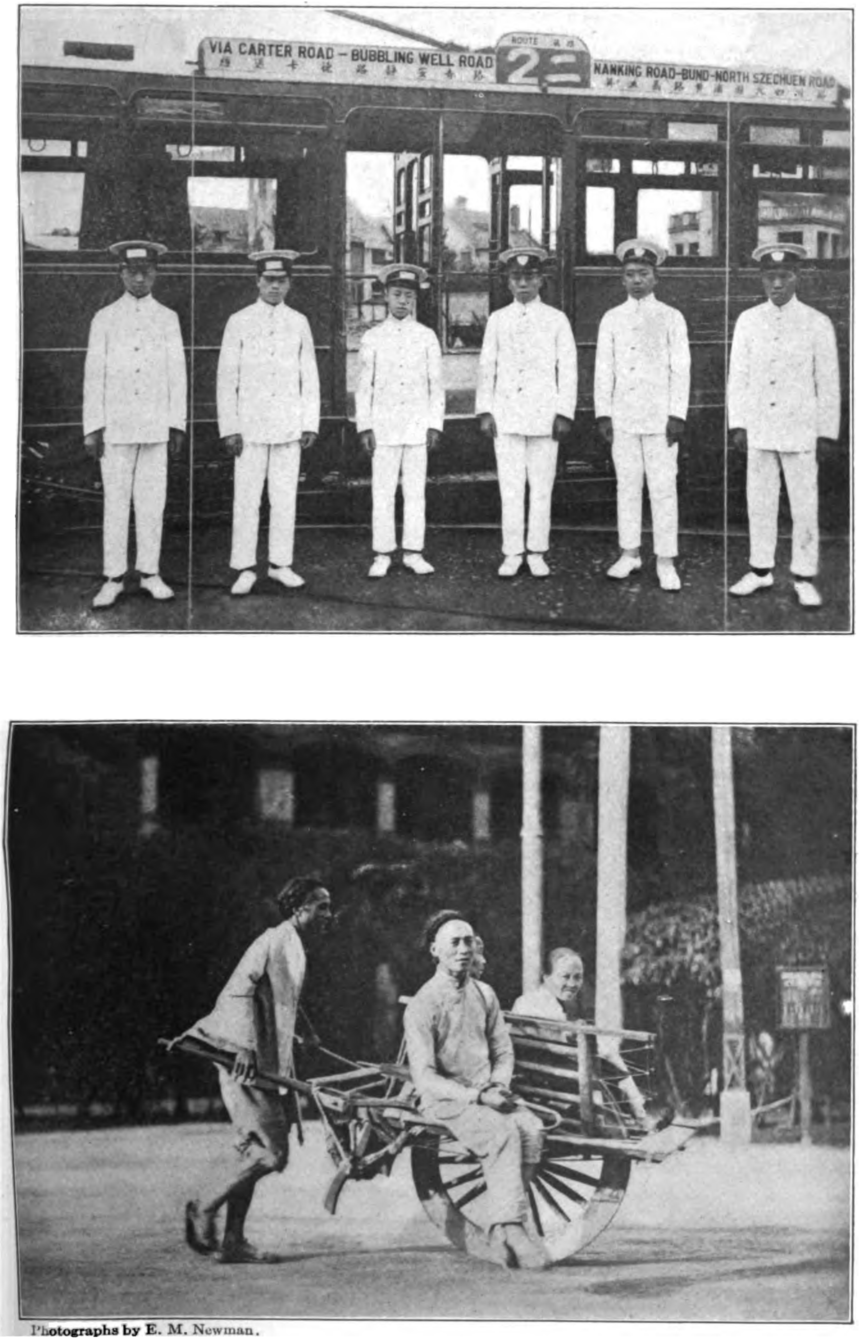
AGRICULTURE.

The principal crops grown are tea, rice, bamboo shoots, olives, oranges, plums, potatoes, sugar cane, mushrooms, and peanuts. With the exception of sugar cane and rice, all the foregoing products are included in the export trade.

There are two varieties of tea, black and green, and there are three crops to the year. The season for the first crop opens in May, and this product usually brings the best prices. The black variety is shipped chiefly to foreign countries, while the green is consigned almost entirely to the northern ports in China. During 1917 the total exports of tea amounted to more than 30,000,000 pounds.

There are two rice crops, designated as "summer" and "winter" crops. The summer crop is planted in April and the winter crop one month later. The estimated yield is about 2,986 pounds per acre.

There are two kinds of bamboo shoots, the early and late varieties. Shipments of this product in 1918 totaled 11,802,000 pounds.


VIA CARTER ROAD – BUBBLING WELL ROAD
ROUTE
2
NANKING ROAD-BUND-NORTH SZECHUEN ROAD

Photographs by E. M. Newman.

FIGS. 41 AND 42.—TWO MODES OF PASSENGER TRANSPORTATION IN CHINA.

Above: Tramway men, Shanghai.

Photographs by E. M. Newman.

FIGS. 43 AND 44.—CHINESE FARMER AND HIS FAMILY.

Three varieties of olives are grown in this district, the total exports during 1917 amounting to about 5,790,000 pounds and in 1918 to 3,663,000 pounds.

Oranges are gathered in the late fall. During 1918 shipments reached more than 8,000,000 pounds.

Potatoes are planted early in the summer, and the estimated yield is 11,944 pounds per acre.

Mushrooms are gathered in the late fall and early winter, the annual production reaching a large figure. Shipments of this product from Foochow during 1918 totaled more than 360,000 pounds.

Peanuts are planted in the spring, the yield being about 2,388 pounds per acre.

In this connection, attention should also be called to the growing of timber and bamboo at interior places. No figures in connection with the growing of the latter are obtainable, but shipments of the former during 1915 totaled in value $1,217,567.

Money is advanced by certain local firms to growers of crops, a monthly interest rate of 1.8 per cent being charged. Such local firms handle all incoming products and employ brokers to dispose of the goods upon arrival. A 2 per cent commission is charged by those firms, the brokers' charge being about 1 per cent. The local firms are held responsible for all accounts.

The agricultural implements used are of very simple native make, the water buffalo being the farm animal employed. Night soil, animal manure, and ammonia are most generally used as fertilizers. Besides water buffalos, live stock includes cows, pigs, goats, ducks, geese, and chickens.

MINERALS AND MINING.

In Fukien the mines that have been discovered and claimed include coal, iron, copper, gold, lead, zinc, and molybdenum, under native control and management. Shaowu, Yungan, Tehwa, Anki, Kienning (Chienning), Chungan, Lungyen, and Wuping are coal producing districts; the coal is high-grade anthracite. Anki, Kutien, Tehwa, and Tatien are iron-producing regions. Molybdenite is found in Yungtai; galenite in Ningteh, Yungan, and Tatien; copper in Nanping; and gold in Shaowu and Kienning. The mines in operation are molybdenite, lead, coal, and copper mines—molybdenum from mines of the Yungpao Molybdenum Mining Co. in Yungtai; lead from the holding of the Huhsing Lead Mining Co. in Ningteh; and coal from the mines of the Ichi Coal Mining Co. in Shaowu. The copper at Nanping and gold placer at Kienning, discovered by a Chinese mining engineer born in America and graduated at Columbia University, have good indications of a great future. Prospecting work has been undertaken on the copper mine.

The mines in operation do not use mining machinery, though foreign mining methods have been adopted. There are good chances, therefore, for enterprising mining-machinery companies, as the mining people now realize the importance of machinery for quicker work and greater profit.

Mining licenses must first be obtained through the local mining bureau before any prospecting or development work can be started. Laws enacted by the Board of Agriculture and Commerce control mining companies..

Most of the mines are still in the prospecting stage, and no reliable figures of mining products can be given. It is said that only a small quantity of molybdenite has been exported. But capital and much perseverance and skill will be needed before these mines produce any noteworthy results.

COMMUNICATIONS BY SEA AND LAND.

The sole means of communication between the Foochow district and the near-by trade centers of Shanghai and Hongkong is by sea. With the exception of a few boats during the tea season, no direct communication with Europe or the United States is had. Steamers carrying cargo to and from Foochow are now compelled to anchor at Pagoda Anchorage, a safe harborage lying about nine miles below Foochow in the Min River. The port of Santuao, which is also open to foreign trade, is of no commercial interest to the American manufacturer, that port serving chiefly as a base for the shipment of tea to Foochow; it is situated some 70 miles north of Foochow, the harbor being one of the finest on the China coast.

Referring to the sea approach to Foochow, at low water, the depth on the bar is 12 feet, and large ships can not enter the river but are compelled to await the rise of the tide, when the depth of the water reaches 25 to 30 feet. Steamers have again to stop, and this time finally, at Pagoda Anchorage, which is 35 miles distant from the mouth of the river. All cargo is transshipped on lighters at the anchorage, and from two to three days' delay usually ensues before the arrival of the goods at Foochow. An additional fee of 20 cents Mex. for each package is levied for carriage on these lighters or cargo boats.

About 10 small steamers (of 8-foot draft) ply between Foochow itself and Santuao, Hsinghua, and other near-by coast ports. These steamers all operate under the Chinese flag. Several small launches operate under foreign flags to up-river points under the Customs inland steam navigation rules. The latter cater only to the passenger trade.

There are no railways or tramways in operation in this district. During the latter part of 1915 leading local officials and merchants planned the construction of a light railway from Foochow City to Pagoda Anchorage, a distance of nine miles, at an estimated cost of about $200,000. The project is still held in abeyance because of lack of funds.

There are practically no roads, strictly speaking, in the rural portions of this district. In Foochow itself several miles of roads have been built by the foreign community. About 30 miles of macadam road just outside the walled city have also been built by the Chinese.

In addition to the boat service in general use throughout this district, there are only two land routes that deserve to be mentioned; both of these are merely 4-foot stone paths, leading to and from neighboring Provinces. The hilly nature of the country makes the use of vehicles of any kind impossible.

POSTAL FACILITIES.

The postal facilities between this district and the outside world are adequate. In addition to the Chinese postal service, British, French, and Japanese post offices are located in Foochow. Parcels can be sent to the United States through any one of the five offices. Parcels from the United States are invariably received through either the British or Japanese post offices. Money orders to points in the United States can be dispatched through any one of the foreign post offices. Letters from New York to Foochow usually take about one month in transit.

TELEGRAPHS.

There are two telegraph offices in Foochow—those of the Chinese Government and the British Eastern Extension Service. The latter has cable connections with all points throughout the world. The Chinese company purchases all of its foreign-manufactured material in England, Germany, and Denmark, and the British concern patronizes its home manufacturers exclusively. Cable communication with the United States can be had via the Atlantic or Pacific routes, the former route being the more expensive. The Chinese company uses 1 Wheatstone and 12 Morse machines and the British company 3 Morse and 5 recording machines. There are no prospects of any further extension of either service in the near future.

TELEPHONES.

There is only one telephone service in this district—that at Foochow. The local telephone company is privately owned, had 560 subscribers at the beginning of 1918, and does an annual business of more than $10,000. The subscription for the ordinary wall instrument is $60 Mex.[1] per annum, and for the mitrophone style $72 Mex. per annum. The company proposes to install all mitrophone instruments in the near future. There are two branch exchanges, six switchboards being in use—four of British and two of Norwegian manufacture. There are 20 native operators, no foreigners being employed in any department. Practically all of the supplies purchased are of either Japanese or European manufacture.

NEWSPAPERS.

The only newspapers published in this district are two printed in the Chinese text. One, the Min Sheng Pao, with a daily circulation of 7,000, is controlled by Chinese, while the other, the Min Pao, with a daily circulation of 1,000, is owned and operated by Japanese. It is estimated that not more than 25 per cent of the natives are able to read the newspapers. The advertising rates charged are as follows:

(1) For every line of 10 characters, No. 2 type, or fraction thereof, 5½ cents Mex. per issue.

(2) For every line of 16 characters, No. 4 type, or fraction thereof, 3½ cents Mex. per issue.

(3) For every line of 20 characters, No. 5 type, or fraction thereof, 3 cents Mex. per issue.

(4) Double charge for front page, and intermediate space.

(5) A 10 per cent discount will be allowed on insertions for one month, 20 per cent for two months, 30 per cent for seven months, 40 per cent for six months, and 50 per cent for one year.

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[1] See footnote on p. 84.

PUBLIC WORKS AND SANITATION.

In 1918 the Min River Conservancy Board was formed by members of the Chinese and foreign communities, and a preliminary scheme was drawn up with a view to improving the river to a depth of 10 feet at low water between Foochow and Pagoda Anchorage. The project, which will cost about $900,000 Mex. and will require three years to complete, has received the sanction of the Peking Government and the diplomatic corps at Peking. An American engineer has been engaged for the work, which is expected to begin in the summer of 1919. Funds for the work are now being collected by means of a surtax of 5 per cent on the import and export duties and tonnage dues levied by the Maritime Customs, which is helping to finance the project.

No special irrigation or reclamation projects have been promoted or effected in recent years in this district. Work of that character on a small scale is always carried on by the Chinese population, whole communities at times uniting to common advantage.

The local officials in 1914 instituted a Road Improvement Bureau, and this body has been active in effecting many improvements throughout Foochow. Streets have been enlarged, electric lighting installed, and a new macadam road, with concrete drains and bridges, has been constructed. The construction of additional macadam roads is going on slowly.

There is only one lighting plant in this district, the one erected at Foochow by the Foochow Electric Light Co., which also operates the local telephone exchange. This company has been given exclusive rights for the whole of Fukien Province, and plans to operate lighting plants in the cities of Hsinghua, Kienning, and Yenping in the not distant future. At the beginning of 1919 the number of lights installed was about 47,500. There are two engine sets installed, each of 150 kilowatts, the two dynamos being capable of supplying current for 30,000 lights. There is also installed one American turbine of 500 kilowatts capable of supplying current for 40,000 lights. The company intends to replace the two engine sets with another turbine of 1,000 kilowatts. The pump and boilers as well as the dynamos are of British manufacture. Most of the electrical supplies have been purchased in England; American and Japanese equipment is also used. The net profits of the company in 1918 amounted to about $100,000 Mex.

There were 592 subscribers to the telephone service at the beginning of 1919.

TREATY PORTS.

Although there are two treaty ports in this district, Foochow and Santuao, one need only refer, so far as trade conditions are concerned, to the first-named port, since practically all of the important export trade is under the control of merchants located there. The population of Foochow and suburbs is estimated at 800,000. It is the provincial seat of government. There are no foreign concessions in Foochow, and unrestricted residence within the business confines of the port is enjoyed by all foreign merchants. The United States, Great Britain, France, Germany, Japan, the Netherlands, Norway, and Mexico are countries having consular representation in the port.

TRADE SUGGESTIONS—FINANCE AND BANKING.

Foochow has adequate banking facilities. There are three foreign banks, the Hongkong & Shanghai Banking Corporation, British; the Banque Industrielle de Chine, Franco-Chinese; and the Bank of Taiwan, Japanese. With the exception of kerosene, practically all of the American-manufactured articles consumed locally are imported through native firms. That a good market along many lines exists for the American manufacturer seems certain, but it will be difficult to enter into local competition unless active measures are taken, by having representatives on the spot. The time has apparently come when American firms must establish themselves at convenient trade centers in China, in order to secure their due share in the trade. The half dozen British firms located in Foochow make most of their profits in the export trade; yet, being on the ground, they are a constant aid to the British manufacturer.

There is no reason why an American firm should not locate in Foochow and conduct a general export and import trade with profitable results. Every pound of tea shipped to the United States during a recent year was consigned through local British firms. An American firm located at Foochow could also profitably ship to the United States camphor, hemp, cordage, feathers, lacquer ware, and possibly olives and tobacco. A glance at the import statistics will show that there are numerous articles in which the American manufacturer could, under existing conditions, successfully compete in the local market.

It would be preferable, for various reasons, for such an established American firm to operate and conduct all of its trade through headquarters established in Shanghai. Foochow is too far north and too near Shanghai to be, as at present, dependent upon the port of Hongkong for the conduct of its import and export trade. Shipping conditions between this port and Shanghai are much better, two steamship lines plying between the ports; and the establishment of a local American firm would soon tend to bring the routing of all Pacific-coast goods to this port via Shanghai, in place of the present method of subjecting all such goods to the delay of shipment by the longer route to Hongkong and thence back again by coast steamer. Transshipment of Foochow-bound Pacific-coast cargoes at Shanghai would mean a saving of 7 to 14 days, and if necessary all bills, documents, etc., could be sent through an American bank at that trade center. In fact, there is no reason why the American firm could not act as local agent for such a bank. American fire and marine insurance, as well as steamship, companies could also be properly represented to mutual advantage.

The currency in circulation in the Foochow district is of three classes—"chopped" dollars, native bank notes, and small or subsidiary coin. The chopped dollar is a defaced silver dollar coin that is usually quoted at a 2 to 4 per cent discount in comparison with the clean unmarked Shanghai Mexican dollar; $100 in chopped dollars is equal to $105.80 in native bank notes or $110 in small or subsidiary coin. In business transactions between Chinese the bank note is exclusively used, while in dealings with foreign merchants the chopped dollar alone is used. Practically the whole of the importation of foreign manufactured goods is arranged with Hongkong and Shanghai firms, few or no direct orders being placed. The local foreign banks charge the usual rates of interest prevailing at other treaty ports. The Chinese banks handling secured loans in amounts from $500 to $5,000 levy an interest charge of 1½ per cent monthly. No interest is paid on current accounts. In extending the usual three months' credit on unsecured loans of larger amounts to responsible parties, a monthly interest charge of from $5 to $15 per $1,000 is collected.

As stated, there are a British bank, a Franco-Chinese bank, and a Japanese bank in Foochow. Exchange on European and American points is bought and sold freely. Rates on all Asiatic ports are also quoted. Established and responsible foreign firms in this port ordinarily have no difficulty in receiving financial assistance from the foreign banks in the conduct of their export and import trade.

At the beginning of 1918 the 37 Chinese banks in Foochow had a combined capital of $800,000 and notes outstanding totaling $950,000. The net profits of these banks during 1917 amounted to about $200,000. The Chinese banks are the medium for financing the planting and movement of all interior crops, and for keeping the timber trade on a sound footing. They also facilitate the trade to and from Chinese ports, but do not quote exchange on foreign countries.

MANUFACTURING AND OTHER INDUSTRIES.

The principal Chinese industries that have been developed and built up during the past 10 or 12 years include the manufacture of native cotton cloth, soaps, canned goods, condensed milk, glassware, and towels. The manufacture of a cheap laundry soap is now an established industry of Foochow, the production of the seven factories during 1917 amounting to about 21,000 boxes, valued at $46,000. Several local factories are engaged in the manufacture of condensed milk, using buffalo milk; the output in 1917 reached about 150,000 tins, the product being consumed entirely in Foochow and interior districts. A Chinese sugar mill with foreign machinery has also been established. A government arsenal at Pagoda Anchorage below Foochow, established some years ago and equipped with fairly modern machinery, is now doing excellent engineering and ship-repair work. A new modern brick factory, with a capital of $70,000, was established during 1917. Second-hand machinery was installed, costing 20,000 yen and purchased in Japan. The factory was, however, obliged to shut down during 1918. A fair business is done in the manufacture of brick tea at one factory, foreign machinery being used.

The principal crude native industries are the manufacture of umbrellas (kittysols), horn combs, and crude paper.

The only foreign industries located in Foochow are sawmills, an albumen factory, and a small ice plant. The two oil companies maintain installations where oil cans are assembled and completed for the distribution of kerosene oil. Little opportunity appears to exist at present for the extension of manufactures along any line.

Much salt is produced in the Foochow district. For many years this industry was a Government monopoly, but in August, 1918, the free-trade system was instituted in about 30 districts and will be gradually extended throughout the whole Province. This system is popular with the people, as the price of salt has been reduced 50 per cent in the districts in which it operates, and it will eventually produce more net revenue than the old monopoly system. The revenue received by the Government during 1918 was about $1,100,000, Mex.

Two new sawmills were established at Foochow during 1918, making four now in operation at that port. The new ones are a British mill and a Sino-Japanese plant. Planks and boxes were turned out in large quantities during the year. Immense rafts of logs and poles are sent down the Min River to Foochow, where the logs are cut up and the poles prepared for export.

There was recently formed in Foochow an association for the promotion of Chinese industrial interests. Several members of this organization have already raised $75,000 for the establishment of an iron foundry at Foochow. It is planned to produce small iron household, agricultural and other utensils, machine parts, and other iron products of a simple nature.

COMMERCE OF THE PORT—INTRODUCTORY SUMMARY.

The table below gives the total imports and exports, foreign and Chinese, through the Maritime Customs at Foochow during the years 1904, 1913, and 1918:

Imports and exports.	1904	1913	1918
Imports of foreign goods:			
From foreign countries and Hongkong	$4,982,645	$5,569,728	$4,932,332
From Chinese ports	713,312	958,748	1,662,656
Total foreign imports	5,695,957	6,528,476	6,594,988
Reexports of foreign goods:			
To foreign countries and Hongkong	45,654	43,460	40,796
To Chinese ports	32,754	181,184	217,466
Total foreign reexports	78,408	224,644	258,262
Net total foreign imports	5,617,549	6,303,832	6,336,726
Imports of Chinese products	3,053,730	6,785,869	7,193,223
Reexports of Chinese products:			
To foreign countries and Hongkong	1,309,677	1,701,698	890,242
To Chinese ports	729,284	1,658,589	2,792,910
Total Chinese reexports	2,038,961	3,360,287	3,683,152
Net total Chinese imports	1,014,769	3,425,582	3,510,071
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	2,171,351	2,732,522	3.302,557
To Chinese ports	2,591.870	4,246,680	5,511,814
Total exports of local origin	4,763,221	6,979,202	8,814,371
Gross value of the trade of the port	13,512,908	20,293,547	22,602,582
Net value of the trade of the port	11,395,539	16,708,616	18,661,168

EXPORT TRADE.

Shipments of local native produce to Europe and the United States are confined almost entirely to tea, and only small quantities of camphor, egg albumen, feathers, and lacquer ware have been shipped to those countries. Shipments of large quantities of the following products are annually made to Chinese and other Asiatic ports: Bamboo shoots, lampblack, mushrooms, medicines, olives, oranges, paper, potatoes, tea, timber, and umbrellas. The lack of an American firm and bank will always act as a handicap in the increased development of export trade with the United States. The several British firms engaged in the shipment of tea to the United States look upon this trade as merely a side line, their efforts being principally expended in the furthering of trade with British markets. Practically all of the export cargo to the United States is shipped to Hongkong for transshipment to destination. Storage facilities in Foochow are adequate for present needs.

The following table shows the principal exports (excluding re-exports) through the Maritime Customs at Foochow during the years 1904, 1913, and 1918:

Articles.	1904	1913	1918	
	Quantity.	Quantity.	Quantity.	Value.
Bamboo and bamboo ware ....value..	$9,917	$11,888	....	$73,009
Bamboo shoots ....pounds..	12,463,333	12,526.000	11,802,000	926,112
Camphor ....do....	161,333	27,600	56,533	33,536
Chinaware, earthenware, and pottery ....pounds..	....	269,733	535,866	9,649
Feathers, duck, fowl, etc ....do....	304,267	295,066	116,000	9,916
Fish and fishery products ....do....	200,667	124,966	439,332	87,829
Furniture ....value..	$5,218	$13,760	....	64,519
Hemp ....pounds..	62,533	....	(a)	(a)
Horns and hides, cow and buffalo ....do....	11,867	11,266	[b] 186,400	[b] 28,653
Lacquer ware ....do....	29,733	1,600	(a)	(a)
Lampblack and soot ....do....	345,067	873,467	(a)	(a)
Leather ....do....	85,033	1,066	77,866	42,430
Lungngans (fruit), dried ....do....	556,667	488,400	248,266	29,610
Medicines ....value..	$25,591	$49,775	....	76,795
Mushrooms ....pounds..	48,800	387,000	361,733	216,917
Oil:				
Camphor ....do....	83,333	....	791,999	82,411
Tea, wood, bean, etc ....do....	167,333	18,333		
Olives:				
Fresh ....do....	3,064,800	4,980,400	3,662,933	98,796
Salted ....do....	182,000	....		
Oranges, fresh ....do....	4,015,200	13,750.400	8,058,933	102,028
Paper, first quality ....value..	$138,512	$29,812	....	653,077
Plums, dried and salted ....pounds..	513,333	657,800	(a)	(a)
Potatoes ....do....	1,630,533	2,668,533	1,911,733	12,741
Seedcakes ....do....	221,067	5,869,600	2,086,533	13,718
Tea:				
Black ....do....	34,185,200	16,828,133	6,208,800	1,656,805
Green ....do....	640.667	647,600	4,784,400	959,409
Brick, black ....do....	3,211,867	1,835,333	1,197,066	122,102
Dust ....do....	495,733	24,800	454,400	34,537
Timber and wood of all kinds ....value....	$360,566	$800,275	....	2,193,289
Umbrellas, paper ....number..	388,783	759,256	506,848	108,841

[a] Figures comparable to those for the other years shown are not available for 1918. [b] Skins.

The following table shows the value of the articles declared at the Foochow consulate for exportation to the United States during the calendar years 1917 and 1918:

Articles.	1917	1918
Curios	$5,204	$1,191
Drawn work	....	217
Household goods	1,177	....
Quills, cut	3,083	10,133
Tea	343,110	179,121
Tobacco leaf	....	252
Total	353,477	190,914

During 1913, the last normal year before the war, the declared exports from Foochow to the United States were valued at $220,412, of which tea accounted for $218,478.

IMPORT TRADE.

In cotton goods the British and Japanese manufacturers have had a good trade in recent years in the Foochow district, while but little American cloth has been sold. That this condition will not improve in the near future is a foregone conclusion, and it is only through persistent endeavor that any improvement in the trade can be looked for. As already indicated, the import trade in cotton piece goods is almost entirely in the hands of the native merchants who purchase their wares in Shanghai and Hongkong. This being the case, the comprador medium of the foreign firms enters but little into the situation. Shipping facilities between Foochow and Hongkong and Shanghai are adequate, semiweekly trips being made as a rule. Most of the interior points in this district can be reached by water transportation, and goods properly packed for export usually reach their destination in good condition.

The following table shows the principal net imports of foreign goods through the Maritime Customs at Foochow during the years 1904, 1913, and 1918:

Articles.	1904	1913	1918	
	Quantity.	Quantity.	Quantity.	Value.
COTTON GOODS.				
Shirtings, plain, gray and white ....pieces..	79,266	54,269	55,063	$320,000
Drills:				
American ....do....	4,454	2,290	235	1,663
English ....do....	4,125	15,461	3,288	22,749
Jeans, English..................................do....	....	....	4,811	32,749
T cloths:				
English ....do....	113,049	74,252	51,913	146,820
Japanese ....do....	....			
Cambrics, lawns, and muslins, dyed, white, and printed, pieces....................................	12,581	26,786	7,529	30,820
Chintzes and plain cotton prints..................pieces..	9,074	13,351	10,521	52,516
Lenos and balzarines, white, dyed, and printed...do....	504	....	1,356	5,443
Turkey-red cotton and dyed T cloths..............do....	10,422	14,050	6,237	23,067
Cotton, Italian, plain, colored, and figured.........do....	20,552	17,534	(a)	(a)
Cotton lastings, figured ....do....	....	....	(a)	(a)
Shirtings, dyed and plain:	11,199	5,659	6,896	35,622
Hongkong ....do....	3,488		1,190	9,832
Other ....do....	290,800	157,295	(a)	(a)
Cotton cuts, dyed ....yards..				
Cotton flannel, plain, dyed, and figured..........pieces..	6,191	7,106	9,806	47,448
Japanese cotton cloth..............................yards..	....	....	7,365	614
Japanese cotton crape ....do....	....	....	(a)	(a)
Velvets and velveteens, plain......................do....	73,861	53,888	11,326	5,946
Cotton blankets ....pieces..	1,287	....	1,732	2,541
Towels ....dozen..	13,764	26,330	27,298	28,125
Handkerchiefs ....do....	11,671	18,309	11,541	6,853
Cotton goods, unclassed ....yards..	141,863	....	(a)	(a)
Cotton yarn ....pounds..	5,300,133	4,662,667	1,094,000	429,692
METALS.				
Lead, in pigs and bars ....do....	1,823,467	1,480,533	612,266	70,833
Tin in slabs..................................do....	487,600	583,867	283,733	255,292
Tin plates ....do....	837,467	....	242,400	51,099
SUNDRIES.				
Bêche de mer..................................pounds..	64,533	351,467	419,866	103,755
Buttons, brass..................................gross..	5,037	....	14,341	7,664
Candles ....pounds..	57,733	196,667	248,666	31,149
Clocks and watches ....number..	5,719	[b] $9,226	5,519	13,846
Clothing, hats, boots, etc..........................value..	$7,982	....	....	56,418
Coal ....tons..	8,388	3,779	7,778	139,837
Cotton socks ....dozen..	5,010	(a)	(a)	(a)

[a] Figures comparable to those for the other years shown are not available for this year.

[b] Value.

Articles.	1904 Quantity.	1913 Quantity.	1918 Quantit'	
SUNDRIES—continued.				
Cuttlefish ... pounds	582,133	637,867		
Dyes, aniline ... value	$28,926	$27,210		
Indigo, artificial ... pounds	...	...		
Fish and fishery products ... do	1,704,133	b 6,214,5		
Flour ... do	2,848,667	15,578		
Ginseng ... do	41,259	8'		
Glass, window ... boxes	3,664			
Glass and glassware ... value	$5,364	...		
Graphophones and accessories ... do	$1,123	...		
Lamps and lamp ware ... do	$17,819	...		
Leather ... pounds	55,333	...		
Machinery and parts ... value	$29,198	$45,523	..	
Matches ... gross	206,762	315,008		
Milk, condensed, in tins ... dozen	1,003	...	4,	
Munitions of war ... value	$165,109	...	...	
Mushrooms ... pounds	3,067	...	(a)	
Mussels, dried ... do	264,533	260,133	(a)	
Needles ... thousands	52,355	...	14,732	14,
Oil, kerosene:				
American ... gallons	197,010	1,684,049	766,832	249,026
Borneo ... do	...	971,213	460,982	118,492
Russian ... do	400,000	...	...	...
Japanese ... do	...	70	178,785	42,658
Sumatra ... do	3,909,479	584,495	620,147	189,663
Paper, all kinds ... value	$10,674	...	...	46,006
Sandalwood ... pounds	550,267	438,133	299,200	39,674
Seaweed and agar-agar ... do	2,845,600	2,382,267	2,649,866	57,314
Soaps, bar ... value	$10,285	...	(a)	(a)
Soda ... pounds	116,400	...	282,266	20,286
Sulphur ... do	...	...	(a)	(a)
Sugar, all kinds ... do	12,951,200	16,479,200	14,779,599	837,581
Umbrellas, cotton ... number	19,739	84,219	39,878	28,248
Varnish ... pounds	74,133	...	28,800	5,982
Wines ... value	$8,826	...	...	4,560
Wax, paraffin ... pounds	49,333	...	241,200	27,431

[a] Figures comparable to those for the other years shown are not available for this year.
[b] Fish, dried and salt.

SHIPPING FACILITIES FOR TRADE WITH UNITED STATES.

Except for an occasional tea steamer, there are no direct shipping facilities between Foochow and the United States. Export cargo consigned from and shipped to this port must be transshipped at either Hongkong or Shanghai. Cargo may thus be shipped to and from American points via Pacific or Suez routes. The three shipping companies maintaining regular services with Foochow are the Douglas Steamship Co. (British), touching at Foochow, Amoy, Swatow, and Hongkong; the China Merchants Steam Navigation Co. (Chinese), whose steamers run between Foochow and Shanghai; and the Osaka Shosen Kaisha, whose steamers touch at Foochow, Shanghai, Tientsin, Dairen, Amoy, Takow, and Keelung (the last two ports being in Formosa).

The high freight rates prevailing as a result of the war have restricted the export and import trade to no small extent. Despite the high rates, space on steamers is often difficult to arrange for. Export shipments to the United States can be arranged through local agents of the American, British, and Japanese shipping companies. Steamers obtain pilots at the island of Matsu, outside the mouth of the Min River. Pilotage and harbor dues in force at Foochow are the same as those at other treaty ports in China.

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Another foreign trade organization in
Chamber of Commerce. In addition there is a
Commerce. Twenty native guilds are also establ
None of the Chinese organizations are in a position to
correspondence.

AMERICAN INTERESTS.

The first American firm to locate in Foochow was established in the sixties, and in 1875 there were three American firms engaged in the import and export trade. None of these firms are at present in existence, and there is no American firm now in the port capable of handling an import or export trade.

American missionaries appeared in the district simultaneously with the first of the American merchants. The extent of American missionary interests is on a par with, and may even surpass, similar large interests of Great Britain. Catholic mission interests are represented by Spanish priests. The American societies represented in educational or missionary work are the American Board Mission, the Methodist Episcopal Mission, and the Y. M. C. A. The American societies are engaged in work in Foochow and 14 other places, 125 Americans being employed in the promotion of the work. Well-equipped hospitals are maintained in Foochow and seven other places.

Apart from the sale of kerosene oil and sewing machines, American interests are not represented locally. In contrast with this condition, there are located in the port 2 British banks, 13 British import and export merchants, 1 Japanese bank, and 2 Japanese import and export firms.

HARBIN CONSULAR DISTRICT.

By Consul C. K. Moser.

LOCATION AND CLIMATE.

North Manchuria may be considered as coincident with the Harbin consular district. As distinguished from South Manchuria, it consists of all Manchuria lying north of the city of Changchun and dominated by the Chinese Eastern Railway, a Russian institution. It is thus, for commercial purposes, "within the sphere" of Russian influence. South Manchuria, comprising Fengtien (Mukden) Province and the lower portion of Kirin, is dominated by the South Manchuria Railway and is within the sphere of Japanese influence. The two railways connect at Changchun, thus linking the Far East with Europe by land route.

The Harbin consular district includes the Province of Heilungkiang and all that part of Kirin Province lying north of a line drawn between the cities of Changchun and Kirin (which are included in the Mukden consular district) and thence eastward to the Manchurian-Russian frontier. It includes the following Chinese cities opened to foreign trade: Manchouli (Station Manchuria,) Hailar, Tsitsihar, Aigun (Taheiho or Sakhalin), Sansing, and the city of Harbin. Besides these, all the towns along the Chinese Eastern Railway and the Mongolian town of Bodune, on the Sungari River, are open to trade.

The district extends from 43° 50′ north latitude, at Changchun, to 53° 30′ at Argun, on the Amur River, and from 117° 50′ to 135° 20′ east longitude. It lies, therefore, in about the same latitude as Minnesota, the Dakotas, Montana, and the southern half of the three Canadian Provinces of Manitoba, Saskatchewan, and Alberta. The climate is very similar to that of Montana, with long, dry, exceedingly severe winters and short, hot, and rather showery summers. Ice closes the rivers to navigation from the beginning of November to the end of April. The coldest regions are along the upper course of the Amur in the Greater Khingan Mountains, where the winter temperature sometimes falls to 70° F. below zero and the ice on the rivers is 6 feet thick. At Harbin in ordinary winters the thermometer rarely falls lower than 40° F. below zero, but in an ordinary year from the first of December to the end of March the maximum daily temperature averages about 30° F. In summer the thermometer at Harbin seldom reaches 100°, and as the atmosphere is very dry the heat is not oppressive.

AREA AND POPULATION.

The area of Heilungkiang Province is 166,700 square miles and the population approximately 2,000,000. Kirin Province has an area of a little more than 100,000 square miles and a population of a little less than 6,000,000. Thus the Harbin district is nearly as large as the combined area of North and South Dakota, Minnesota, and Iowa, and its population is about equal to that of the State of Pennsylvania.

The original inhabitants, the Manchus, were of Tungusic origin and are rarely seen, but settlements are still found along the Sungari, especially in the region of its junction with the Amur, and on the Ussuri River. The great body of the people are Chinese who have immigrated from Shantung or the southern Provinces. The Russian and foreign population is confined almost exclusively to Harbin and the towns along the Chinese Eastern Railway. Living conditions make it practically impossible for foreigners, except officials and the agents of great commercial firms, to reside in the interior towns. There is never likely to be such a thing as a white colonization of the timber, mining, or agricultural districts.

Chinese farmers form the bulk of the population. These people are almost wholly sufficient unto themselves. While war conditions have created a great demand and high prices for their products and they have enjoyed prosperity previously undreamed of, they are very backward in developing the requirements of a higher civilization, and their buying capacity, as well as their taste for foreign products, is still limited. Probably $5,000,000 would be a large estimate of their annual buying capacity. The development of Manchuria itself as a market for foreign products can only come with the development of its mines, forests, and immense agricultural areas by foreign capital and enterprise. The population in the west, south of the Khingan Mountains, is largely nomadic and the people are satisfied to subsist almost wholly upon their herds and flocks.

The Russian population, aside from the commercial portion at Harbin, is supported almost wholly by its activities in connection with the Chinese Eastern Railway. The non-Russian foreign population is engaged exclusively in trade. It will grow only as the opportunity for trade between the eastern portions of Russian territory and the Pacific develops, or as the mining, agricultural, and timber resources of Manchuria are opened up to the world.

PRINCIPAL CITIES AND TOWNS.

HARBIN.

The modern town of Harbin is the product of the Russo-Japanese War and is 15 years old. It consists of four sections—Old Harbin, the original town erected by the Russians at the junction of the Southern Branch of the Chinese Eastern Railway (Harbin-Changchun) with the main line; Novogorod, or New Town, containing the present railway station, administration offices, hotels, consulates, and principal residences; the Priestan, or Harbor, situated between the hill on which New Town stands and the Sungari River, and containing the flour and bean mills, the banks, the principal wholesale and retail houses; and Madiagow, containing the residences of railway employees, artisans, and laborers. Old Harbin is of no importance. New Town is the center of the administrative and social life, while the Priestan is the scene of most commercial enterprises. These different sections are all combined under the name of Harbin, and the population at the beginning of the war was 65,000. It has nearly doubled since that time; hence the present population is not less than 126,000. It is estimated that about 90,000 are Russians, 3,000 Japanese, and 2,000 foreigners of other nationalities, the largest number of whom are Greeks. The rest are Chinese. The American community in

North Manchuria numbers about 100, the British slightly more. There are no Germans or Austrians, and very few French or persons of other nationalities.

Harbin is the seat of administration of the Chinese Eastern Railway and of its workshops. The Chinese Maritime and River Customs are both located there. There are five banks, each doing a foreign-exchange business. The 10 principal flouring mills of Manchuria, four bean-oil mills, and two candle factories constitute the principal industries. There are also two cold-storage plants, a municipal slaughterhouse, and a large meat-packing plant (British), which exports meat products to Europe. Across the Sungari is the Hulan Sugar Factory, owned by Chinese capital, for the manufacture of sugar from beets. A Russian factory located at Station Ashiho, 20 miles east of Harbin, has ordinarily a larger output; but, as a result of war conditions, neither of these factories are important producers at present.

Formerly Harbin was regarded as a distributing center principally for North Manchuria and for the river towns along the Amur in Siberia. But since the war it has become the great Eastern point of distribution for trade to all parts of Russian territory. Merchants from Petrograd, Moscow, Kharkov, as well as from every section of Siberia, have come to Harbin to meet with the foreign merchants and order goods. To a large extent this trade has been fostered by refugees from those sections, who saw the opportunities and communicated with the merchants in their old homes. The city is literally packed with people; practically no hotel or room accommodations of any kind are to be had; and, because of the cost and difficulty of procuring building supplies, it will be a long time before the congestion is relieved. The hotels are poor in quality but high in price.

The streets are badly paved. There are no tramways or other means of transportation except by hired carriages, which are dirty and uncomfortable. Laxity in municipal regulations, resulting from disturbed conditions, has placed people at the mercy of the Chinese "izvostchiks," or drivers, whose prices are as exorbitant as their discourtesy is annoying. Hence, in spite of every adverse condition, motor cars are being purchased by all who can afford them, in order to be free from the drivers' tyranny. Motor trucks for goods traffic, however, can not compete with the Chinese cart, because of the bad condition of the streets and the high cost of fuel. Good hotels, paved streets, electric tramways and lighting system, and a modern sewage system are crying needs in the city of Harbin.

Harbin has by far the largest white population of any city in Asia. In summer there are cafés and gardens, music, and good food. In winter there are concerts, public skating and dancing halls, and, in normal times, theatrical companies from Moscow.

The city is well laid out, with an abundance of trees and parks. Americans have successfully introduced many playgrounds for the young people. The Railway Administration has established a "club" and a library for the use of its members; there are also other clubs, chiefly of a commercial or political nature. The places of amusement include three motion-picture theaters and two cafés chantants.

Three private electric companies inadequately supply the city with light, and for several years negotiations have been undertaken to reorganize these companies with foreign capital, as well as to build tramway lines, the need for both being very great. There are two post offices and two telegraph systems, Russian and Chinese. The Russian post and telegraph offices are in New Town, the Chinese post office is located in the Priestan, and the telegraph office is very inconveniently situated in the Chinese city of Fuchiatien, about 3 miles from New Town. The municipal telephone service is under the control of the Chinese Eastern Railway and has about 1,000 subscribers. It is also connected with the Chinese service at Fuchiatien.

FUCHIATIEN.

Adjacent to Harbin and connected with it by a paved road is the Chinese city of Fuchiatien, its left flank girdled by the main line of the railway and its right flank resting upon the Sungari River. Regarded as outside the railway "zone," its administration is wholly Chinese, and its status as a treaty port, for the trade and residence of foreigners, is not admitted. The Japanese, however, have established business houses there.

During the war, Fuchiatien has experienced an unprecedented era of prosperity and the permanent population is now about 100,000, almost wholly Chinese. It is the great market which receives wheat, bean, corn, barley, and hemp products from the interior by cart and river boat. It has its own bourse or money exchange, four principal and many small banks (Chinese), and a chamber of commerce. A number of large firms from South China have lately opened branches at Fuchiatien, but the principal trade of the city is retail. Within the past two years its prosperity has enabled it to begin constructive works of some importance, such as the draining of outlying lands for the establishment of warehouses. It has streets far better paved than those of Harbin. Most important of all, Fuchiatien is constructing a "bund" along the Sungari River front nearly half a mile long and capable of sustaining a very large river traffic. While the big Russian and Chinese river steamers mostly discharge cargo at Priestan, the junk traffic, which reaches all parts of the interior, is discharged at Fuchiatien. As Harbin grows through its importance as a meeting place for Russian and foreign trade, Fuchiatien is sure to profit by its proximity to Harbin and to progress along with the latter city as a center of northern Chinese trade.

KIRIN.

The city of Kirin has about 60,000 inhabitants, nearly all Chinese. The Standard Oil Co. and the British-American Tobacco Co. are the only important foreign firms. Japanese firms, however, are rapidly establishing themselves, particularly in the timber trade. The city is an important shipping point for grain products and timber. Lying in a magnificent lumber region at the head of navigation on the Sungari, it has for generations built most of the junks of Manchuria and boat building is its principal industry. It contains also one of the few breweries now operating in the district.

TSITSIHAR.

Tsitsihar, the capital of Heilungkiang Province, has about 40,000 inhabitants, not including two Chinese infantry regiments, a cavalry troop, and two batteries of artillery that are distributed from there over the Province for the protection of the inhabitants against robber bands. The Chinese city is connected by an antiquated narrow-gauge railway, 15 miles in length, with the Russian town of the same name on the Chinese Eastern. Russia and Japan maintain vice consulates, but the principal foreign trade is done through resident Chinese agents. The most noteworthy characteristic of Tsitsihar is that a former governor, Chu Ching Lan, was deeply interested in education and established a high school, a school for the soldiers, a school for girls, and several primary and intermediate schools, so that Tsitsihar has the best school system of any North Manchurian town.

OTHER TOWNS.

Station Manchouli (*Manchuria*) has about 12,000 inhabitants and is principally important as being Manchuria's western gateway to Siberia.

Hailar, while nominally in the control of China, is in reality a Mongolian town and the Russian administration there deals principally with the Mongol authorities. It is a range center distinguished for the accumulation of wool, hides, raw skins, cattle, sheep, and horses from the Mongol nomads.

Sansing and *Lahasusu*, on the Sungari, are outposts of the Chinese Customs. Sansing was formerly the center of a very considerable fur trade. It is still the chief city of a fur-trapping region, but the market has removed to Harbin. One foreign firm has a branch there.

Mergen, in the Nonni Valley, is isolated, and is hardly more than a caravan stop between Tsitsihar and Aigun (Taheiho), from which it draws its supplies.

Taheiho, opposite Blagovyestchensk, is destined to become an important town. It is already the seat of the Chinese Customs and of important branches of the British-American Tobacco Co. and the Standard Oil Co. Its largest trade, however, is contraband. The towns along the Chinese Eastern Railway east of Harbin, including the eastern frontier or customs post of Suifenho, or Pogranichnaya, are commercially unimportant.

Imienpo and *Handaohedtze* are summer resorts for the Russian populace of Harbin.

Hulanfu, Peilintze, Suhuaten, and *Bodune*, in the vicinity of Harbin, are important towns as consumers of oil, cotton goods, and tobacco. They are also centers of export for beans and wheat. Hulanfu has a Chinese population of 30,000, the others considerably less.

PHYSICAL FEATURES.

The outstanding physical features of North Manchuria are two important mountain ranges and two great rivers. The Greater Khingan Mountains run from south to north in western Manchuria, following the general direction of the Argun River, which separates Manchuria from Siberia on the west, to the Amur River, which constitutes the entire northern boundary. Then the range turns east with the flow of the river, follows its general course to the eastern boundary, the Ussuri River, and is known as the Lesser Khingans. The other mountain range, the Khreb-Kente-Aleen (Chinese, Chang-Pai-Shan) runs northeasterly along the eastern boundary of Manchuria to the junction of the Ussuri and Amur Rivers. These ranges are of ordinary height, generally 3,000 to 5,000 feet, the highest peaks scarcely exceeding 8,000 feet. The eastern range is heavily and magnificently wooded with Manchurian pine, hemlock, Manchurian oak, beach, and maple. The Khingans are less wooded; birches, spruces, and scrub oak are the most abundant trees. Both ranges send off spurs toward each other, which meet in the central plain and contain what are believed to be valuable mineral deposits, especially of coal.

The Amur River flows along the whole northern frontier of Manchuria and is navigable to Stretensk in Siberia, a distance of more than 2,000 miles from its mouth at Nikolaevsk, on the Sea of Okhotsk. The Amur is one of the great rivers of the world, being from 1 to 7 miles wide and of great depth through its whole course, except at the mouth, where sand bars are formed by the tides. Since the beginning of the war dredges have kept the harbor at Nikolaevsk open to vessels with a draft of 19 feet. Two Russian steamship companies of large capital each own fleets of more than 100 modern river steamers. These, with many smaller vessels, ply the Amur constantly from April to November, carrying wheat, flour, fish products, kerosene oil, and timber between the large river cities of Nikolaevsk, Habarovsk, Blagovyestchensk, and Stretensk.

The Sungari rises in the eastern range, flows south and west by the city of Kirin to Boduna, on the Mongolian border, where it is joined by the Nonni. Then it turns northeastward via Harbin to Sansing to join the Amur, 450 miles north of Harbin. The Sungari is navigable from Kirin, and the Nonni for small boats from Mergen, at the foot of the Greater Khingans; so that the two are navigable for a length of more than 1,000 miles.

The Argun on the west and the Ussuri on the east are both navigable and pass through a fertile, well-settled country, but neither river has been commercially developed.

The Nonni and the Sungari are joined by many tributaries, nearly all of which are navigable for large junks and drain broad valleys of virgin fertility, capable of supporting a population of millions. In recent years a steady tide of immigration into these valleys has set up from the overcrowded populations of Shantung and Chihli Provinces.

By the treaty of 1858, called the Treaty of Aigun, Russia and China agreed that the Amur and Sungari Rivers should be navigated only by vessels flying the flags of Russia and China. Hence steamers belonging to other nations have not been allowed hitherto on these rivers. In practice, however, Russia has, in the past, always kept the Amur free even of the Chinese flag, and Chinese steamers have been obliged to transship their passengers and cargo to Russian steamers at the mouth of the Sungari. But since the revolution Chinese steamers have been allowed in the Amur, and as it is by no means an accepted principle of international law that these inland waters may be reserved to the flags of only two nations, it is not improbable that steamers of other nationalities may shortly be seen on them. In fact, in the spring of 1918 five large Russian steamers at Harbin were purchased by Japanese firms for navigating the Sungari, and it is not unlikely that they will be operated under the Japanese flag. This will mean, of course, that British, American, or other firms established in Manchuria may enjoy a similar privilege. The Outdoor Branch, or River Customs, of the Chinese Maritime Customs Service has charted the channel of the Sungari and admirably controls its traffic.

These extensive river systems, connecting with the Chinese Eastern Railway at Harbin and Tsitsihar, and with the Amur Railway in Siberia (through its intersection by the Amur River at Stretensk and Habarovsk) not only furnish Manchuria with a great water supply and drainage system, but with unexcelled water routes to take the place of railways and wagon roads. Thus, for example, timber cut in the eastern ranges may be floated down the Sungari, and coal mined in the remote Western Khingans be sent down the Nonni, to meet each other at Harbin; whence they may be shipped north to Siberia by the Sungari, or put on freight cars and sent acrosss to western Europe, or south through Dairen to Japan, or east to Vladivostok and thence to the North American continent. In like manner, on these great rivers and their many tributaries cotton piece goods, kerosene, and other foreign manufactures are borne away to the remote villages in the interior valleys.

POLITICAL ADMINISTRATION.

The zone of the Chinese Eastern Railway is under the administration of the railway authorities, or under Russian law except with regard to non-Russian foreign citizens who enjoy extraterritorial rights. Political administration of the remainder of North Manchuria is in the hands of the Chinese provincial authorities. Kirin City is the capital of Kirin Province and the residence of both a civil and a military governor. Tsitsihar is the capital of Heilungkiang Province, which maintains a special bureau at Harbin for relations with the Russian administration of the Chinese Eastern Railway; but relations affecting non-Russian foreigners are conducted between the governor at Tsitsihar and the several consulates at Harbin.

Chinese administration at Harbin, which is in Kirin Province, is in the hands of a local governor or taoyin, who is likewise special commissioner for foreign affairs and deals with the respective consulates in all matters relating to foreign interests. A special mixed court exists, in conjunction with the Russian authorities, to try cases involving Russian and Chinese litigants. A garrison of about 5,000 Chinese troops is maintained at Harbin under the command of a lieutenant general, and since the end of 1917 Chinese police have temporarily taken over patrol of the Russian city, superseding Russian police. By operation of the treaty of 1896, giving Russia the right to build and operate the Chinese Eastern Railway, the Russian Government conferred upon the management of the railway the right of civil administration of the municipalities within the railway zone. The other foreign powers, however, have not agreed to this as affecting the extraterritorial rights granted to their citizens by the several treaties with China. Questions of jurisdiction were in dispute for 10 years.

In December, 1914, an agreement was ratified between Russia, the railway, and the British Government whereby British subjects submitted to the municipal regulations and taxes imposed by the Russian administration upon Russian subjects, and in return therefor they were admitted to all the privileges, such as land-holding and suffrage, enjoyed by Russian subjects. Police powers were not to be initiated against British subjects except by previous consent of their consulate. Foreign citizens whose Governments adhered to this agreement were to have the right to vote in municipal elections and to be represented by one member, selected by the several interested consuls, upon the municipal council. The agreement has been ratified by Great Britain, France, Japan, Italy, the Netherlands, Belgium, Spain, Denmark, Norway, and Sweden; but the United States did not accept it, and American residents in North Manchuria, therefore, do not vote nor possess the power to hold real property in the zone of the Chinese Eastern Railway. On the other hand, they pay no taxes and are exclusively responsible to and under the jurisdiction of their consulate.

Municipal questions are settled by a municipal council of nine members, at Harbin, of whom one is selected by the consuls and the others chosen by an assembly of delegates from the whole railway settlement. The assembly of delegates is chosen by popular election. All enactments of the several municipal councils in the settlement, however, must receive the approval of the head of the railway administration, and his "obligatory regulations," or mandates, take precedence over them. Prior to December, 1917, Russian police preserved order in the municipalities under the direction of the civil government of the railway. Since that time Chinese police and soldiers have superseded the Russian police, in the main, throughout the railway zone, though a Russian police organization is still nominally in control and exercises limited functions.

From the beginning of the war until December, 1917, only the Russian police examined the papers of foreigners traveling in North Manchuria, and passport stations were established at Kwangchengtze (Changchun), Harbin, Pogranichnaya, Lahasusu (at the mouth of the Sungari), and at Station Manchouli. Russian passport supervision in North Manchuria still exists as a practice, but it is no longer recognized as a right; for in January, 1918, passport supervision was taken over by the Chinese Government and placed under the administration of the Chinese Maritime Customs. Foreigners traveling in North Manchuria are thus usually required to submit their passports for inspection to both Chinese and Russian authorities at the frontier stations and at Harbin. But no obligation rests upon American citizens to submit their passports to the Russian police, either for examination or for registration during their residence in the town, provided they produce satisfactory evidence of their citizenship to their consulate.

AGRICULTURE.

The valley of the Sungari River is the most fertile region of Manchuria. With the exception of fruits, which do not mature well, it is capable of producing in extraordinary abundance practically everything that can be grown in such a northern latitude. Until Chinese farmers moved in a few years ago the whole region was practically virgin soil. It has scarcely been scratched, and scientific methods of cultivation, combined with the proper use of waterways to bring its harvests to market, would make it one of the most productive regions in the world. The Sungari Valley, the rich and rolling, superbly watered, and picturesque country between Kirin and Changchun, and the plains lying about Petuna, Harbin, Hulanfu, and Peituanlintze are commonly referred to as the "granary" of Manchuria. The plains are best for beans, the rolling lands for grains. but all these regions are thinly populated and the methods of cultivation primitive. The area of arable land in Kirin Province has been estimated at 5,800,000 acres, but nearly as much again could be utilized if necessary and if worked by modern methods. There are known to be at least 4,000,000 acres of arable land in Heilungkiang, and the interior of this Province is imperfectly known even to its own officials. A very large portion of Heilungkiang, however, appears to be better suited for sheep and stock raising than for agriculture.

Soya beans, wheat, millet, and kaoliang, in the order named, are the four principal crops, about 90 per cent of the total land under cultivation being devoted to them. Corn, hemp, edible beans, beets, oats, and buckwheat are extensively grown. Edible beans could be grown in enormous quantities for export as food to the rest of the world, but as a matter of fact they are now grown only for the consumption of the population, and the Mancuhrian farmer is extremely loath to offer them in the market. The varieties are unimproved—chiefly of the kinds used for making bean paste. American, British, and Japanese agriculturists, however, are now investigating the possibilities of North Manchuria as a producer of edible beans for export.

SOYA BEANS.

Soya beans appear to suffer because of the mistaken idea that they are too oily to be used as a food. As a matter of fact many Europeans living in Manchuria have tried them and found them, when properly cooked, to be most palatable, besides being very rich in nutritive qualities. Moreover, of the three kinds produced—yellow, green and black—the yellow contains the largest percentage of oil and is the variety almost exclusively exported. There is no reason why the other kinds could not be used as a valuable food. The North Manchuria bean is regarded as a little inferior in quality to that of South Manchuria, as the following analysis would appear to indicate:

	Water.	Fat.	Albumen.	Sugar.	Fiber.	Ash.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*
Dairen beans	9.23	18.31	24.39	23.97	5.67	6.13
Harbin beans	12.80	17.37	24 36	20.30	4.80	5.98

The estimated soya-bean crop of the Harbin consular district exceeds 1,000,000 tons per year, of which about 50 per cent is now exported to Japan, though formerly going to the United Kingdom and the Netherlands. Recently the exports to Japan, in the form of bean oil, have found their way to the United States. The remainder is consumed locally, chiefly as bean oil, and 90 per cent of the bean cake from the mills is exported as manure or food for horses.

Having become accustomed to selling their beans in rubles, the Chinese farmers will accept only rubles in payment, and the fluctuation of that currency has been so violent that a quotation of prices would be only confusing. At the beginning of the war a good price for soya beans was 65 kopeks, or about $0.33 gold per pood of 36 pounds. Present prices vary, according to the amount of speculation in the local markets, between 5 and 6 rubles per pood, and within the six months preceding the writing of this report that sum represented almost anything between $0.30 gold and $1.

WHEAT.

The usual wheat crop is also about 1,000,000 tons per annum. The best and heaviest wheat grows in the valleys of the Sungari and along the Mutan River, in Kirin Province. This wheat averages over 71 pounds to the bushel, whereas wheat from the other districts sometimes weighs 3 to 5 pounds less. From a bushel of the best wheat 48 to 50 pounds of flour is milled at Harbin. The present market quotation for wheat is 5.30 rubles per pood of 36 pounds; for flour, best quality, 13.80 rubles per pood.

MILLET AND KAOLIANG.

Millet and kaoliang (Kaffir corn) form the principal food of the local Chinese population. North Manchuria produces the best millet and South Manchuria the best kaoliang. The stalks of these plants are also used largely as fodder, fuel, and roofing for the farm houses. They are also used sometimes as a binder for making the mud walls. Something less than 1,000,000 tons of millet and about 600,000 tons of kaoliang are estimated as the annual production of the district. The present local price for kaoliang is 3 rubles per pood.

EFFORTS TO INTRODUCE MODERN FARMING MACHINERY.

Modern agricultural machinery is being very gradually introduced, but the farmers are slow to accept it. Western plows, harrows, cultivators, and even hand tools are practically unknown. The North Manchurian farmer is a man of large family with a rooted belief in the efficacy of hand labor. In the more prosperous districts one often encounters farmhouses that shelter 20 or 30 hired hands in addition to the very large family.

An American firm, however, has persistently worked in this district to introduce improved plows, cultivators, road and farm machinery, and some success has attended its efforts. The most practical advance has been made through a large American experimental farming company that has a concession of many thousand acres for development between the Sungari and Amur Rivers, and leases lands to Chinese farmers for cultivation on modern lines. The company has introduced caterpillar tractors to draw gangplows and a great deal of modern farm machinery. The manager admits, however, that the cost of traction machinery for farming is much higher in Manchuria than that of horse labor, and that he uses machinery only because the multitudinous horseflies and insects, which carry anthrax or other fatal animal diseases during the summer months in that district, have made the use of horses impossible. So long as horse and hand labor are so comparatively cheap, the market for modern agricultural machinery will not be very great.

LIFE AND CHARACTERISTICS OF NORTH MANCHURIAN FARMERS.

The North Manchurian farmer is frequently a man of considerable property, because his tastes are extremely simple, his needs few, and his opportunities for spending money rare. The business of the after-the-war trade seeker is to find some means of exciting in him a desire to improve his condition in life, to create in him new and higher tastes which only foreign trade can satisfy. This will be a more difficult task, probably, than in South China, which is in closer contact with the ideas of Western civilization.

One cause for the rudimentary equipment and furnishings of the Manchurian farmer is his fear of robbers. He does not dare possess things that may stimulate the cupidity of his less fortunate neighbors. The farmers' best defense is to band together in little villages and see to it that they keep nothing on hand that will attract outlaws. But whether standing alone in the midst of the fields or situated in a village, every North Manchurian farmhouse and its outbuildings are inclosed in thick, mud outer walls studded with heavy wooden gates. At nightfall the gates are barred, and the call of a strange voice outside brings the rush of a dozen dogs, trained to rend the intruder, followed by the farmer with his old muzzle-loading gun.

HORSES AND CATTLE.

A large portion of North Manchuria consists of rolling plains, well watered and with abundant grass for the raising of horses and cattle. The lower hills of the Khingans furnish sufficient shelter and food for sheep farming. The abundance of deer in nearly every region indicates the adaptability of the country for the production of sheep. Especially suitable regions for stockraising in Heilungkiang Province are the plains about Tsitsihar and the plateaus west and southwest of Hailar. On both sides of the Sungari and especially about Sansing the conditions for cattle raising are admirable, the only drawback being the presence of great numbers of insect pests in summer. Anthrax and rinderpest are both known, but the latter is rare and measures are being taken to stamp out the former.

There are no statistics as to the number of domestic animals raised in North Manchuria, but it must be very considerable, as every farm is well stocked with horses, cattle, sheep, and hogs. American observers have stated that the cattle and hogs of this district are the best unimproved stock seen anywhere in the East. Mongolian cattle are famous for their beef-producing qualities, while the butter of North Manchuria rivals that of Siberia. Hailar and the western ranges supply the rest of the district with meat for local consumption as well as for export. A British firm has a large meat-packing establishment at Harbin, the product of which is shipped to England, and American stock raisers have under consideration the possibility of introducing stock raising on a large scale in this district when political conditions become settled.

Most of the Manchurian sheep come from the herds of the Mongols. An experiment station has developed the fact that, when crossed with imported rams, the stock is capable of great improvement. Hailar, as the chief market to which the Mongols bring their horses, cattle, and sheep for sale each year, is the center of export for hides, skins, and wool. The wool is coarse in quality and is sold almost exclusively to the United States for the manufacture of carpets. It is separated into two classifications for export—washed and unwashed—the slight difference between them being that of the quantity of dirt which the purchaser pays for.

At the beginning of the war the price of washed wool at Hailar was about 9 rubles per pood of 36 pounds, whereas now it is about 50 rubles.

Manchurian ponies are noted for their speed and stamina. In South China they form the bulk and the best of the racing ponies that have made the tracks of Shanghai and Hankow famous. They are really of Mongolian native stock, rather undersized but sturdy. They have warm coats (which enable them to endure constant exposure to the roughest weather), kind dispositions, and are able to subsist on almost any kind of food. Chinese and Russian soldiers use them almost exclusively for cavalry purposes in Manchuria, while for draft purposes they possess the activity and endurance of mules. Crossed with Russian or other selected sires of imported breeds, they are said to produce unexcelled riding and driving animals. In 1915 good Manchu ponies could be purchased for 60 rubles a head, but the price is now from 300 to 2,000 rubles each.

WILD ANIMALS.

Fifty-five species of mammalia and 268 kinds of birds have been classified in Manchuria. The Siberian tiger, brown and black bear, wild boar, wolf, fox, wapiti or elk, otter, marten, muskrat, sable, skunk, squirrel, and many varieties of deer are found in North Manchuria. The district around Sansing still produces the most sable, but Tsitsihar, Kirin, and Ninguta also send furs to the market at Harbin. These furs, however, are not the equal of Siberian furs (a considerable quantity of which has been smuggled into Manchuria since the Russian prohibition on fur exports), but they are frequently dyed by the Chinese to resemble the Siberian product and sold to the unwary. Travelers looking for furs in the Manchurian market should exercise caution. Since the markets of Leipzig have been closed by the war, the market has been allowed to become depleted of good furs and present stocks are of very inferior quality.

Bustards, geese, ducks, pheasants, quails, and snipe, as well as several varieties of partridge and sage hen, are abundant in many localities. Every year the British Cold Storage Co. ships thousands of head of Manchurian game, especially pheasants and rebchik, and domestic fowls to the London markets, where they are highly prized. In 1915 mallard ducks could be bought in the market for 20 cents (gold) per pair. The Mongolian bustard, a royal game bird, as large as the American wild turkey, used to be frequently brought in by the patient Chinese pot hunter, but the increased wages for laborers have nearly eliminated the pot hunter. Though game is as abundant as ever, the price has increased 700 to 800 per cent.

FISH.

The rivers teem with fish—the Amur and Sungari with salmon, mullet, and carp and the smaller rivers with trout, perch, and eels. The roe of the salmon is largely used when fresh as an article of food by the Russian population, under the name of red caviar. It is cheap, valuable as a food, and is preferred by many to the caviar made from sturgeon roe. On the Sungari and its tributaries every farmer is likewise a fisherman, spreading his nets in the evening and hauling them in at sunrise. The fish are kept alive in huge baskets made of plaited grass (through which the water flows) anchored in the river. Fishing does not constitute a special industry, however, and it is only the casual surplus that finds its way to the markets. Fish can be bought in Harbin for 5 and 6 cents a pound.

MINERALS AND MINING.

The mountainous regions that have been explored by Russian engineers are known to be full of mineral ores, but gold and coal are the only two minerals that have been exploited to any extent. The gold mines of the Moho, a tributary of the Amur, and the banks of the Argun River have been worked for generations by the Chinese with their pan-and-pick methods. There are other gold mines of promise all along the Manchurian bank of the Amur, and a British company has lately begun operations in the district lying between the Amur and the mouth of the Sungari. Gold has been located also in the river valleys between Sansing and the Khreb-Kente-Aleen Mountains, and along the Mutan River. One American company is interested in gold mines in the hills about Suifenho (Pogranichnaya). For many years the principal bullion supply of the Chinese Government came from North Manchurian mines, and there is a tradition that the Moho district at one time yielded as much as 8,000 pounds, troy weight, per month; but the total export of gold from the Harbin consular district for 1915, 1916, and 1917 amounted to $3,658,014, $5,741,317, and $3,441,306 United States currency, respectively. While the gold fields across the Amur in Siberia, especially along the courses of the Shilka and Zeya Rivers, have received a great deal of attention from foreign mining engineers, the promising fields of North Manchuria have been neglected.

In at least three districts coal is found in abundance—along the Ussuri River; at Djalinor, in the vicinity of Station Manchouli; and in the region of the Kan River, which flows into the Nonni below Mergen. The Ussuri and Djalinor fields are in the hands of Russians, who have considerably developed the Ussuri, but have not as yet paid much attention to the Djalinor, because of lack of capital. The Kan River coal deposits are "public lands," belonging to the Heilungkiang provincial government, and are wholly undeveloped, though some coal has been taken from them for use at Tsitsihar. The provincial authorities have wished to place the full mining rights along the Kan River with some foreign concern that would in return make them a provincial loan; but so far the project has not been realized.

Notwithstanding the proved presence of extensive coal fields in North Manchuria, the district still depends principally on the Fushun mines in South Manchuria for its coal supply. Fushun coal, in Japanese hands, is said to be superior to any yet discovered in this region. During the last two years its price at Harbin has been almost prohibitive, and the scarcity seemed to offer a great opportunity for the use of local coals. The disorganization of Russian industrial life, however, prevented North Manchurian producers from grasping their advantage.

The Kan River coal is said to be semianthracite and of high grade. Ussuri coal is bituminous and only slightly inferior to that of the Fushun mines. What has been seen of the Djalinor deposits indicates that this coal has a low point of combustion and liberates a great amount of heat energy, but that the residue of slate and ash is large.

Sulphur, soda, lime, and gypsum are found in considerable quantities, and from some of the marshes and lakes the Chinese Government monopoly collects salt.

TIMBER.

Great areas of North Manchuria are heavily forested, the Sungari River dividing the Khingan Mountain forest areas from those of the Chang-Pai-Shan or Khreb-Kente-Aleen Mountains. The Manchurian pine (*Pinus silvestris*) is the most valuable timber. Manchurian oak, chestnut, birch, walnut, elm, spruce, and willow are also found in several varieties. While many timber concessions have been granted to foreigners, especially to Russians along the zone of the railway and to Japanese along the southern Kirin border, the timber industry is still in its infancy. The total exports of timber during the years 1916 and 1917 were 2,526,194 and 2,677,954 feet, respectively, valued at 5,052,388 rubles in 1916 and 16,067,724 rubles in 1917.

The eastern or Chang-Pai-Shan Mountains contain the heaviest forests and the best timber, pine trees over 200 feet high and 5 feet in diameter being not uncommon. Most timber is shipped as logs 20 to 30 feet in length and 16 to 24 inches square. In its timber qualities Manchurian pine is said to resemble most the so-called Quebec pine.

There are few sawmills and hence nearly all timber is logged out in the rough, the best forests being still remote from transportation lines and but little exploited. The forests in the neighborhood of Kirin City, those along the main stream of the Sungari between Harbin and Sansing, and the heights bordering the Mutan River from Sansing eastward contain the best timber. The woods of the Greater Khingans have been scarcely touched. Along the course of the Chinese Eastern Railway east of Harbin, Russian, British, and French concessionaries have stripped the choice timber from the hills. Stations Hailin and Handaohedtze are the principal points of railroad export, while Kirin City rafts down the river the product of the district between it and Ninguta. Besides heavy timbers for milling purposes, the forests supply the railways of Russia and China with a vast quantity of North Manchurian wood in the form of ties, and the entire fuel of the Chinese Eastern Railway is supplied by these forests. It is estimated that the North Manchurian forests employ about 7,000 woodsmen.

RAILWAYS.

The Chinese Eastern Railway, running east and west across Manchuria from Station Manchouli to Pogranichnaya, and connecting with the South Manchurian Railway by a branch southward from Harbin to Changchun, is the only railway in North Manchuria. It connects the ports of the Pacific Ocean, through its trans-Siberian connections, with the ports of the Baltic and North Seas. A Chinese line, now under Japanese management, runs from Changchun to the city of Kirin. The Ussuri Railway runs along the river of that name from Habarovsk on the Amur to a junction with the Chinese Eastern Railway at Nikolsk-Ussurisk, thus connecting Vladivostok with the newly completed Amur Railway in Siberia. But these railways do not properly belong to North Manchuria. A proposed line, for which the route has been surveyed but no construction begun, is that of the Pin-Hei Railway, for which an agreement was signed between the Russo-Asiatic Bank and the Chinese Government in 1916. The route surveyed lies through the rich central Manchurian plain from Harbin to Mergen, and thence north to Aigun (Taheiho) opposite the large Siberian city of Blagovyestchensk, on the Amur. A branch is to run from Mergen down the valley of the Nonni to connect with the Chinese Eastern Railway at Tsitsihar. When completed this railway will open up immense timber tracts, mining regions, and new farm lands for wheat and bean growers.

Another railway proposed, but not so far advanced, is from Station Hailin on the Chinese Eastern across the heavily timbered slopes of the Khreb-Kente-Aleen Mountains to Ninguta and thence along the Sungari to Kirin.

Both these railways are certain to be built in time, when peace is restored and political conditions in Manchuria become settled.

The Chinese Eastern is a single-track, 5-foot-gauge railway owned by Russia, but built largely with French capital. The treaty of 1896 gave Russia the right to build and operate the railway, and it afforded at the same time the opportunity of taking over political administration of a 14-mile strip through Chinese territory on each side of the line. Hence, all towns, customs and commercial regulations, trade and municipal institutions, along the Chinese Eastern Railway are under Russian control. This, however, does not abrogate the extraterritorial rights granted to foreigners by the several treaties with China; non-Russian foreign residents and their business enterprises are under the jurisdiction of the consular representatives of their several Governments, as in other parts of China. Russian regulations, however, control the railway traffic.

The headquarters of the railway administration and the workshops are located at Harbin. There are 14,000 employees, and most of the Russian population of Manchuria is supported by the railway. During 1916 and 1917 its traffic and receipts were:

Items.	1916	1917
Passengers........number..	2,077,585	2,441,221
Freight........tons..	2,951,345	2,685,197
Gross revenue........rubles..	50,498,525	71,771,867
Net income........do....	16,995,811	23,179,779

Because of the decline in the value of the ruble since the beginning of the war, and its monopoly of the traffic, the Chinese Eastern Railway has increased its freight and passenger tariffs more than sevenfold since July, 1914. Hence, at the present time freight and passenger charges on this railway are probably higher than on any other line in the world. For example, ordinary first-class fare from Changchun to Harbin on the weekly express (now temporarily discontinued), together with a "place card," is 135 rubles, or about $14 gold for a trip of 142 miles. Formerly the fare was only 15.25 rubles. The free luggage allowance for passengers has been recently abolished, and only hand luggage that may be carried in the compartment without inconvenience is permitted without charge. The charges on other baggage are very high.

Present freight rates on various commodities between the same two points are as follows:

Articles.	Harbin to Changchun.		Changchun to Harbin.	
	Per pood.	Per pood, in carload shipments.	Per pood.	Per pood, in carload shipments.
	Rubles.	*Rubles.*	*Rubles.*	*Rubles.*
Grains		1.070		0.664
Cotton piece goods	2.184		2.421	
Machinery	1.532		2.184	
Iron and steel	.973		1.316	
Kerosene		1.512		1.778
Coal		.315		.399
Lumber:				
First grade		.574		1.015
Second grade		.553		.854
Salt		.574		.812
Sugar (cube)	1.778		2.471	
Bean oil		1.316		.973
Shoes and boots	2.184		2.471	

Loading and unloading charges are to be paid by the shipper or receiver. Charges for weighing in bulk are being collected at 10.50 rubles per car.

In addition to the ordinary freight charges, a municipal tax of 1 per cent is levied on imported articles, and an unfortunate practice exists of furtively levying certain other charges that can not always be specified.

Foreign goods destined for North Manchuria are shipped to the port of Dairen, with transshipment usually at Kobe or Shanghai. Another route before the war was either direct or via Japan to Vladivostok; but since the beginning of the war the Chinese Eastern Railway has been so short of freight cars and so congested with the transportation of military supplies that the port of Vladivostok has been used almost exclusively for through shipments to Russia. Goods shipped through Dairen, in addition to the previous transshipment at Kobe or Shanghai, are removed from the docks to the cars of the South Manchuria Railway and freighted to Changchun. Here they are again transshipped, usually by Japanese or Russian forwarding agents, to the cars of the Chinese Eastern and forwarded to Harbin. Here, if intended for the interior, they are transferred to Chinese carts, in the winter time only, for hauling up country, or to the steamboats and junks that ply the Sungari River. If intended for consumption farther west or in Siberia, they are transferred to the main line of the Chinese Eastern Railway. All these transshipments cause delay and expense, but during the war they have generally proved preferable to the uncertainties of shipping via Vladivostok.

POST AND TRADE ROUTES.

In Manchuria there are no roads, as western people think of roads, except the short streets found in the towns. Except in Kirin and Harbin these are unpaved, and the streets of Harbin are for the most part wretchedly paved. The so-called post roads of Manchuria are merely traditional pathways marked out by horse and cattle tracks in countless journeys. In winter they are unbelievably rough, but serviceable. The mud is almost without bottom in wet weather, and the dust is blinding when it is dry. There is a famous post road running from Peking northeast to Mukden, thence to Kirin city, and thence north via Ashiho and Tsitsihar, the capital of Heilungkiang Province, to Aigun; but it is now in the same condition as the others and is used only by the local farmers. A post road still in use both for mail and traffic, especially furs and timber, runs from Kirin northeast to Ninguta and thence northwest to Sansing on the Sungari, about 400 miles. It connects at Kirin with another famous road that passes through South Manchuria to Antung and is the favorite route by which in the early years of the war German and Austrian war prisoners escaped from the prison camps of eastern Siberia into China.

In winter all traffic from the bean and grain fields is by two-wheeled Chinese carts, drawn by from 6 to 20 ponies, down the ice-covered watercourses or over the frozen roads. In summer junks bring the crops down the rivers to the Chinese city (called Fuchiatien) at Harbin, and return to their native places with kerosene oil or cotton goods. A large "bund" for the accommodation of this rapidly growing river trade was begun by the Chinese Government at Fuchiatien during 1917, and will be completed by 1919.

Outside the towns motor traffic is impossible. Where neither river nor railway reaches the villages and carts can not make their way, mail carriers go on horseback, accompanied by Chinese soldiers to guard them from the wandering bands of marauders. In the west, along the Mongolian borders, caravans of two-humped camels are used occasionally to carry to market the products of the nomadic Mongols.

NEWSPAPERS.

At Harbin two important newspapers are published in the Chinese language and three in the Russian. The Chinese papers are the Yuan Tung Jih Pao and Tung Tsui Shang Pao; the Russian are the Novosti Zhizni, Trud, and Vestnik Manchurii. The Chinese papers are chiefly official and have no great value as advertising mediums. The two largest Russian newspapers claim a daily circulation of 7,000 and 4,000 copies, respectively. Because of the variations of the ruble, the price of advertising space can not be given, though in general it may be said to average 3.75 rubles per column inch. Advertisements are accepted in both the English and Russian languages, but naturally the English clientele is small.

Posters and handbills may be printed and distributed, as elsewhere, but the Russians do not think highly of this sort of advertising for commercial purposes.

FINANCE AND BANKING.

Harbin is not only the *main* center of North Manchurian commerce but it is practically the *only* center so far as foreign trade is concerned. All the trading and commercial machinery of the district is assembled there. The International Banking Corporation (American), the Hongkong & Shanghai Banking Corporation (British), the Russo-Asiatic Bank and the Harbin Mutual Credit Association (Russian), the Yokohama Specie Bank and the Bank of Chosen (Japanese) are the six principal banks that engage in the business of foreign exchange. At Fuchiatien there are three principal Chinese banks, the Bank of China, the Bank of Communications, and the Territorial Development Bank, which do an exchange business, principally with the Chinese. The French Banque Industrielle de Chine, of Peking, has acquired the building site for erecting a branch of its Peking house. The Harbin branch of the Russo-Asiatic Bank has lately been removed from the control of the Russian Government at Petrograd and placed on the same basis as other foreign banks in China. Foreign exchange rates are quoted by these banks independently of each other, and on a given day their rates may vary to an appreciable extent. The Asia Banking Corporation (American) has under consideration a plan for the establishment of a branch at Harbin.

There is no official bourse, or money exchange market, but the unsettled currency conditions of 1916-17 have led to the formation of an unofficial bourse among the merchants and traders of the Priestan, which has had a very speculative effect on the exchange rates, especially on the ruble. In fact, during the first half of 1918, trade being almost at a standstill, the second-class merchants and the Chinese devoted their talents almost exclusively to speculations in the money market. On account of such speculations, of the high price of silver (which is the currency basis of China), of the exceptional demand for gold yen with which to pay for imports from Japan, and of the political and economic circumstances responsible for the fluctuations of the ruble, exchange at Harbin is a tricky and complicated factor in every commercial transaction. The consulate has, for the last two years, advised but one course for American firms in the United States as well as for their representatives in Manchuria—namely, to quote all prices in gold dollars c. i. f. Dairen, and leave the buyer to arrange the business of exchange at his own risk. The only safe alternative is to settle exchange with the bank at the time of acceptance of the order. Any other course is simply a dangerous speculation, which has frequently led to the breaking of contracts and litigation or to loss.

In the zone of the Chinese Eastern Railway the Russian ruble is the "legal" currency. It was imposed upon North Manchuria by the Russian Government after the Russo-Japanese war and has occupied that status ever since. But its present instability has caused its legality to be questioned; so that it may be regarded as doubtful whether any form of money can be insisted upon as legal. Because of the ruble's instability, the Japanese gold yen is currently used as the theoretical basis for fixing the values of other money. The objection to the Chinese dollar is that in North Manchuria its circulation is very limited. The "diao," or provincial note, has no circulation among the foreign firms but is used as a basis of quotation only. The same is true of the "small-coin" dollar. But while the actual circulation of the yen is increasing and the ruble continues to be discredited, such is the power of custom that the ruble universally circulates in business transactions, both large and small.

Fluctuation in the exchange value of the ruble during the war has been greater at Harbin, probably, than anywhere else, because of local speculations and the peculiar relations of the ruble to the local trade. Its normal value before the war was about $0.515. By the beginning of 1915 it had fallen to 245 rubles for $100 gold. It passed the 300 mark in December, 1916, then fell suddenly beyond 400 rubles to $100 gold because the banks refused to accept it for foreign exchange. Afterwards this policy was reversed, and until after the revolution its value was generally about 360 rubles to $100 gold. The revolutionary movements in Russia during the summer of 1917 forced it still further down until in October it had fallen to 1,000 rubles to $100 gold and in December, 1917, to 1,900 rubles.

In spite of proofs of the excessive overissue of the ruble in Russia, with no gold to back it, and of the possibility that it would be repudiated, the Chinese farmers who were accustomed to it still insisted upon rubles in payment for their beans. Delivery of the new bean crop commenced in January, and there came an immediate demand for the despised currency which everyone had been trying to get rid of. In six weeks the price was forced up from 1,900 to 600 rubles per $100 gold. As prices for all local commodities and goods for export had been readjusted on the basis of a value for the ruble of $0.05 gold, and as these prices were not altered by its sudden rise to a value of $0.16⅔ gold, the cost of local stocks became almost prohibitive.

The foregoing is an illustration of the conservatism of the trade, for naturally the Russian population is even more attached to the ruble than the Chinese. Hence all efforts to divert the local medium of exchange to some other currency have been futile. It is plain, then, that the prices of commodities at Harbin are not subject to regulation or future estimate, and that, viewed from the currency standpoint, all local trade is on a basis no better than that of simple speculation as to what the ruble will do.

MANUFACTURING AND OTHER INDUSTRIES.

North Manchuria is so exclusively an agricultural country that it has developed no industries on any considerable scale. Flour milling, bean-oil production, and the making of beer or vodka are exceptions to a certain extent. As the breweries and vodka distilleries were nearly all within the area of the Chinese Eastern Railway they were subject to the imperial prohibition imposed by Russia on the production of alcoholic liquors soon after the beginning of the war. The large flour mills at Harbin, Ashiho, Imienpo, Hailin, and Shwangchengfu, owned by Russians and Chinese (except one belonging to a Japanese firm), have a capacity of 250,000 tons annually, but the total output in 1916 and 1917 was 200,000 tons and 228,285 tons, respectively. Old-fashioned stone mills for grinding wheat, worked by hand or by mule and pony power, are found in nearly every Chinese village, but their product is wholly consumed by the villagers. An average daily output for one of these mills is not more than 100 pounds. Prior to the war Harbin flour was exported almost exclusively to Siberia, but a war tax of 45 kopeks on flour, while wheat was admitted free, caused wheat exports to be substituted for flour. At the same time a reduction of the supply in South China from American mills led to the exportation of Harbin flour to Shanghai. Harbin flour is noted for its nutritive qualities, its color being slightly yellower than that of American flours, but it is said to possess poor shipping qualities, the amount of water contained in it exceeding 15 per cent. If this is the case it is doubtful whether it can be shipped successfully to Europe, or even to the United States.

At Harbin there are three modern bean-oil mills, but the extraction of oil from beans is carried on rather extensively in the villages by means of primitive hand presses. It is estimated that there are approximately 1,000 primitive oil mills in North Manchuria, and that two-thirds of their product is used locally. Nearly the whole of the bean cake left after the oil has been pressed out is sent abroad. The quantity of bean oil exported in 1916 and 1917, according to the Harbin customs figures, was 9,596,260 and 7,801,138 pounds, and of bean cake 75,592 and 116,620 tons, respectively. Castor oil, sesame oil, thyme oil, and cottonseed oil are produced only in South Manchuria.

Bricks and tiles, and earthenware of coarse varieties and crude design, are manufactured in small native establishments at Harbin, Hailar, Ninguta, and Kirin. They are sold to the local population and have little export value.

Leather is tanned, and furs are cured by Chinese primitive establishments at Hailar, Changchun, Hulan, Kirin, and Sansing. The leather is used only by the Chinese local population. The furs are sent to Harbin, which is an important market. Cotton-cloth manufacture and weaving are unknown, but at Tsitsihar, Hailar, and Petuna, a town on the Mongolian border, there is some manufacture of coarse woolen blankets of little export value.

Other local industries that have no importance, except as regards immediate home consumption, are those of dyeing, the manufacture of hemp cord and ropes, and of such furniture and hardware as a primitive community requires. This is all accomplished by the crudest of hand labor. In Harbin, however, practically all the furniture used by foreigners is now made by Chinese carpenters, who are extremely clever in copying foreign designs. There is no modern manufacture in North Manchuria of porcelains and potteries, of brasses and bronzes, of rare "antiques" and artistic furniture, such as have made the craftsmen of South China famous.

EXPORT TRADE.

Russia, China proper, Japan, the Netherlands, Great Britain, and Denmark were the chief markets for Manchurian products prior to the war. With the exception of Japan these markets were cut off from time to time during the war and the United States was introduced as a new market. But the recent raising of the embargo has again permitted exports into Russia.

The principal exports are soya beans and bean cake, wheat and flour, millet, kaoliang, hemp seed, wool, hides, skins, furs, and meat products. For bean and bean oil, as for wheat and flour, war conditions greatly increased the demand. In the other commodities the trade suffered. The increased movement of wheat, flour, and timber to the more southern districts of China, because of the cutting off of supplies from the United States, was especially heavy. In 1914 the export of flour to South Manchuria amounted to 12,540 tons, and of wheat to 12,063 tons. In 1916, 22,222 tons of flour and 31,746 tons of wheat were sent south. The total export of lumber in 1917 was 47,821 tons, of which 46,711 tons was exported via the South Manchuria Railway.

The following table shows the value in United States currency of the principal articles exported from the Harbin consular district in 1917 and 1918, through the customhouses at Harbin, Manchouli, Suifenho, Aigun, and Sansing:

Articles.	1917	1918
Animals, live:		
Cattle, sheep, goats, and pigs	$552,180	$635,784
Horses and mules	1,134	3,381
Poultry	11,670	4,078
Bean cake	2,117,085	631,314
Beans	10,297,469	1,475,442
Breadstuffs:		
Bran	124,173	50,153
Flour	1,653,793	....
Grain, all kinds	4,263,290	1,010,728
Vermicelli and macaroni	19,129	15,155
Clothing, all kinds	467,488	553,178
Eggs, fresh and preserved	472,977	119,500
Fish and fishery products	438,235	32,181
Furs	9,593	....
Groundnuts, etc	$119,120	$3,526
Hides and skins, undressed	281,731	29,179
Meat products:		
Lard	626,407	251,670
Meats	1,633,443	1,236,239
Tallow, animal	2,349,180	36,290
Oil, vegetable	698,370	129,581
Provisions and vegetables	655,161	85,651
Seeds	256,794	15,464
Sugar	253,657	94,339
Tea	57,347	172,906
Timber	26,966	7,576
All other articles	5,586,952	624,632
Total	33,073,344	7,217,947

The following table shows the value in United States currency of the articles declared at the Harbin consulate for exportation to the United States during the years 1913, 1917, and 1918:

Articles.	1913	1917	1918
Antiques, Chinese	....	$3,510	....
Beans, soya	....	374,512	....
Bristles	....	....	$13,493
Furs	$23,073	302,249	603,564
Hair:			
Camel	....	50,529	....
Horse	....	....	10,054
Hides and skins	58,567	59,115	4,905
Intestines (sheep, salted)	....	....	23,924
Wool, sheep	....	696,351	151,046
Total	81,640	1,486,266	809,986

IMPORT TRADE.

Before the beginning of the war the Harbin district supplied its principal needs by importations from Russia, Germany, and Austria, Russia naturally furnishing the largest amounts. In the order of quantity the principal supplies from Russia to this region were kerosene oil, spirits, metal wares, clothing, soap, women's garments, haberdashery, rubber shoes, tobacco, boots and shoes. From Germany, North Manchuria imported iron of all kinds, steel, tin, lead, solder, machinery, brass and other metal products, electrical supplies, lamp ware, paper and cardboard, underwear, office supplies, medicines and chemicals, groceries, enameled ware, gunny bags (for flour; gunny bags for the exportation of beans were imported from British firms in China which brought them from India), knitted wear, canned goods, cigars, leather goods, and hardware. Austria supplied the principal lines of shoes, hats, women's clothing, and haberdashery. Imports from the United States were principally kerosene oil and canned goods. Aside from Russia, Germany had the largest and most comprehensive trade. Cut off from the German and Austrian sources of supply, the district continued to obtain its principal imports from Russia until the middle of 1916, when that source of supply failed. Japan, in the meantime, introduced its products in great variety, but a preference for the products of the United States developed and, with the exception of silk goods and piece goods, leather cases, umbrellas, and fancy articles from Japan, nearly every foreign-made article now seen in this market is "Made in America." Kerosene and its by-products, shoes and leather, hardware, machinery, manufactures of iron and wires, canned foods, coffee, chemicals and drugs, and automobiles lead the list of imports from America.

The Harbin Customs figures on imports into this district are not even approximately correct, because since the end of 1915 most of the imports have come through Dairen and paid duty there. As the statistics for such imports can not be separated from the figures for South Manchuria, it is impossible even to approximate the quantity and value of the imports billed to Harbin.[1] Below are the Customs figures, for what they are worth, showing the value in United States currency of the imports into the Harbin consular district in 1917 and 1918, through the customhouses at Harbin, Manchouli, Suifenho, Aigun, and Sansing:

Articles.	1917	1918
Asbestos	$111,720	$4,768
Bags	48,510	58,196
Books and charts	12,769	380
Boots and shoes	18,077	52,228
Butter and cheese	376	160,084
Cement	76,914	48,953
Clocks and watches	1,598	47
Coal and coke	172,437	301,586
Coffee	....	7,562
Corks	7,268	2,191
Cotton goods:		
Piece goods	48,106	178,831
Blankets, towels, and handkerchiefs	1,840	3,353
Waste and wadding	439	3,519
Yarn	2,322	6,230
Fish and fishery products	98,272	269,633
Fruits and vegetables	135,180	94,593
Furs	217,800	451,058
Glass and glassware	281,189	88,504
Groundnuts	262	298
Horns, deer	20,200	49,165
India rubber and gutta-percha	....	9,066
Iron and steel:		
Manufactures of, including hardware	245,019	192,322
Machinery and fittings	57,775	50,061
Railway plant and material	245,901	558,193
Sheets and plates	42,102	10,912
Oils:		
Engine, lubricating	....	$13,000
Kerosene (Russian)	$126,028	8,041
Paper	8,803	11,349
Perfumery	24,244	3.348
Photographic materials	21,526	75,498
Soap	17,106	1,011
Sugar:		
White	11,145	6,098
Refined	64,868	59
Tea	230,066	170,521
Tobacco, and manufactures of:		
Cigarettes	786	5,132
Leaf	....	11,487
Tobacconists' sundries	27,281	....
Vehicles:		
Locomotives and tenders	3,605,764	106,172
Railway carriages	22,590	5,988
Motor cars, cycles, etc	12,116	26,236
Wines, spirits, and malt liquors	57.641	110,901
Wood, all kinds	156,829	497,125
All other articles	2,182,251	1,025,437
Total	8,415,120	4,679,136

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[1] EDITOR'S NOTE.—Because of the fact that the Harbin Customs figures do not afford a real indication of the extent of the trade or a legitimate basis of comparison, no attempt has been made to furnish figures for 1904 and 1913, as in the case of the other consular districts.

CUSTOMS DUTIES.

Imports to North Manchuria pay the Chinese customs duty, ordinarily 5 per cent ad valorem, at the port of entry. Goods via Japan pay duty at Dairen, those via Vladivostok pay the Manchurian duty at Pogranichnaya. Goods for export on the Sungari must produce an exemption certificate or proof that they have previously paid at the port of entry. In case the original shipment or package is broken, proof is not considered and an additional river tax of 2 per cent ad valorem is levied. Export duties, where the shipment is not by river—as, for instance, to Siberian points via the frontier stations of Suifenho and Manchouli—are collected at the frontier ports, not at Harbin, by the Russian Customs. For 1917 the export duties collected were:

		Rubles.	Kopecks.
Bean cake	per pood		20
Beans	do		33
Cigarettes	per pound	9	30
Fish:			
Fresh	per pood		30
In tins	do	7	50
Flour	do		70
Furs	do	16	50
Hides:			
Dry	do		83
Wet	do		44
Meat, fresh or frozen	do		20
Oil, bean	do	3	65
Tea	do	33	50
Tea, brick:			
Black	do	19	60
Green	do	15	60
Timber:			
Logs	do		10
Beams	do		17
Lumber	do		44
Tobacco	do	45	00
Wool:			
Unwashed	do	1	50
Washed	do	3	50

LACK OF PARCEL-POST FACILITIES.

Parcels by post from the United States never reach North Manchuria if routed by Japan instead of specifically routed via Shanghai. The reason for this is that Japan has no parcel-post arrangement with China that extends to this district. The result is that parcels addressed to Harbin from the United States are usually transshipped in Japan to the postal service for South Manchuria. They are carried as far as Changchun, on the principle that this is the nearest Japanese post office, and from there they are returned to the sender. Japan is now endeavoring to establish a post office at Harbin, which will also handle parcels.

FORWARDING COMPANIES AND LOCAL AGENTS.

There are one English and two Japanese forwarding agents at Dairen, one Russian forwarding agent at Changchun, and one Russian and two Japanese agencies at Harbin that receive and forward shipments to their destinations in North Manchuria.

With the exception of the several foreign firms at Harbin, a list of which may be procured from the Bureau of Foreign and Domestic Commerce, the employment of local agencies by American firms can not be advised during present disturbed commercial and political conditions. It is strongly recommended, however, that American firms send their own traveling representatives to Harbin, who might have no difficulty in finding reliable agents to handle their goods afterwards.

TRADE ORGANIZATIONS.

The American business men have organized the American Merchants' Association of Harbin, and the British have a British Chamber of Commerce. There is also a Russian-American International Commerce Association, lately organized and composed only of residents of both nationalities interested in promoting mutual relations between the two countries. A somewhat similar organization has been formed by Russian and Japanese merchants.

The more formal organizations of the commercial classes, however, are the Harbin Chamber of Commerce and the Chinese Chamber of Commerce.

GENERAL TRADE SUGGESTIONS.

CREDITS.

The Germans had the best part of the foreign trade in North Manchuria, principally because they were organized to extend long credits and to "nurse" them carefully. When the war came on, Russian and Chinese buyers had great difficulty in adjusting themselves to short credits or cash payments. They were accustomed to receiving as much as nine months' credit, and in some instances with large firms it was even the custom for the seller to deposit 10 or 15 per cent of the order value, in cash, with the buyer at the time of taking the order, as a guaranty that it would be filled. The general demand of American houses for bankers' credits in the United States with order could not be met. After a time, however, American seller and Manchurian buyer effected a sort of compromise upon a basis of 25 per cent cash with order and the balance against documents at port of delivery. Manchurian buyers have become accustomed to this arrangement now, and it is not advisable to change it, for the present at least. The former pride in long credits as an indication of the firm's standing is being superseded by a healthier pride in its ability to pay cash.

Under present conditions, however, the buyers are capricious, and it behooves the seller who would not take serious risks to see that he fulfills the conditions of his contract to the letter. Whenever possible, if acceptance of the shipment is not to his advantage the Manchurian buyer is tempted to take advantage of the times and to use any variation on the seller's part from the terms of the contract as an excuse for refusing to take delivery. Time of delivery, quality according to sample and capable of proof, and the proper packing of the goods are points that demand the most careful attention of the American exporter if he aspires to a market in the Harbin district. The frequent transshipments between interior points of the United States and Harbin compel extra attention to care in packing if shipments are to reach their destination undamaged.

From the foregoing it will be seen that under present conditions the extension of credits can not be considered as advisable—as it might be in other markets. The basis of "all quotations in gold, 25 per cent with order and cash against shipping documents, payable at one of the local banks," is regarded as the most acceptable method.

BUSINESS AND COMMERCIAL CUSTOMS.

As in other parts of China, every established foreign firm has its "comprador", a Chinese of business experience and well acquainted with the district, who arranges all the firm's business with Chinese customers. He usually works upon a joint salary and commission basis. Trade with Russians is sometimes conducted directly between the firm and the buyer, but in most cases it is done through one of the many so-called brokers whose unfortunate business ventures have reduced them to the necessity of finding customers for other people. The size of the commission for introducing a buyer may be fixed, or it may depend upon the size of the order. Not infrequently the broker so negotiates as to get commissions from both buyer and seller on the same transaction.

There are practically no jobbing houses and few wholesale houses (as Americans understand the terms) which deal in special lines for sale to the trade. Except for a few foreign firms, Harbin firms either order for themselves and retail directly to customers, or order only goods that they have already sold to buyers from Russia. In other words, except for their own local trade they are in reality merely brokers who keep no stocks on hand. Neither do they, generally, deal in specialties, the exceptions being a few foreign firms that devote themselves exclusively to beans or to the importation of sugar and piece goods. The average Harbin importer will buy or sell anything on which he can make a profit. He will ship skins and wool to New York and bring back gramophones to sell in Siberia.

The exporter generally has only an office, his clerks, and his samples. A very few of the principal ones have large godowns, or warehouses, and keep stocks on hand. For the rest, their Chinese agents go out in the interior villages and buy from the middlemen there, who in turn negotiate with the farmers or producers through lesser middlemen. The most expert American seed buyer can not go among the Chinese farmers and buy his seed direct. His very appearance would be certain to treble the price. Moreover, the farmers would be suspicious of his standing and motives. Nor will the producer, as a rule, bring his goods into market. He waits in his place for the middleman to come to him; the middleman must even arrange to get the goods transported to market.

In buying wool and live stock a special custom must be carried out with the Mongols. The wool buyer sends his agents among them in the early autumn to look over the promise of their flocks. From the appearance of the animals the agent estimates the probable spring yield. He then advances the Mongol a sufficient sum to feed the sheep through the winter and insure the appearance of the wool in the spring market. In return for this advance he has no further lien on the Mongol's wool than the latter's promise that on market day he will have the first opportunity to buy it at the market price. A rival who has risked nothing may get the wool if he offers more money.

Of course, if the rival gets the wool, the original negotiator *may* be able to find the Mongol and get his money back before it has been spent.

LANGUAGES.

Correspondence with all banks and with the non-Russian foreign firms may be carried on in English. In correspondence with Chinese firms the English and Russian languages are of about equal value. But the commercial language of the district is Russian. As a rule, Russian merchants who receive business letters or catalogues in English give them just a little less attention than the average buyer in the United States would give to letters and catalogues addressed to him in Russian.

A good many American firms, having been educated to the preparation of literature in the Spanish language for the use of Latin-American firms, consider that they have done their whole duty in the struggle for Manchurian trade when they write a letter in Spanish to a Russian firm in Harbin and inclose price lists and catalogues in the Spanish language. It is unnecessary to comment on such a practice.

METHODS OF DEVELOPING TRADE.

It should be remembered always that the bulk of future sales to North Manchuria will be destined for consumption in Russia or by Russians, and that to gain the Russian market one must go after it with the aim to meet the Russian buyer's demands, not to satisfy the convenience of the seller. The German organized his facilities for gaining and holding Russian trade. He used his organization intelligently to introduce his goods into the market and to keep them there. He used it to cultivate the trade assiduously, to hold his credits, and to gather his cash when it fell due. Especially the German exporter gave the Russian what he asked for, manufactured it to his taste, and delivered it in the form that he wanted. He seldom tried to sell to the Russian goods that he had manufactured for somebody else or for home consumption and could not dispose of elsewhere. The American will have to do the same if he wants to get the business.

Catalogues and price lists for Harbin should be truthfully illustrated and in convenient form. They should be *in the Russian language.* They may be accompanied by terse business letters calling brief attention to their contents; but the average grandiloquent communication of the American export sales manager fails to accomplish its purpose in the North Manchurian field.

Commercial travelers in this district ought to have a knowledge of the Russian language sufficient for an ordinary trade conversation. The Russian buyer is a very human person. More perhaps than any other business man, he not only appreciates but demands personal contact. Impersonal relations, however businesslike and attractive the proposition advanced, most often lead to nothing. No amount of attractive literature can accomplish as much as a single visit from even the very ordinary salesman who has a capacity for establishing friendly relations. The salesman must possess patience and sympathy. Personal relations being established by way of tea and talk, business is introduced casually and the prospective client educated to an appreciation of the attractions of the line. One can not hurry the Russian business man.

Interpreters are difficult to procure and not always trustworthy. They make, moreover, a third party to the contract, and both Russian and Chinese merchants like to feel that their business is a secret between themselves and the party of the second part.

NOTE.

The value of the ruble having fluctuated violently from 100 rubles = $51.50 gold to 1,900 rubles = $100 gold during the war, quotations in gold would be meaningless. Hence, for purposes of comparison all values in the foregoing report (except in the export and import tables), are quoted in rubles. The value of the ruble in June, 1918, when the report was written, was about $0.10 gold.

All statistics of imports and exports have been taken from the Harbin Customs Returns, and the goods that passed through Changchun (which comprise the great bulk of the trade) are not given in the returns.

For example, American kerosene oil and shoes are not on the list of articles imported, according to the Customs figures. Yet the Standard Oil Co. sold 1,500,000 gallons of kerosene, while more than 1,000,000 pairs of shoes were imported during the year into the district for resale to Russia. In the list of articles exported from Harbin via Changchun, beans, bean cake, hides, and furs do not appear. Of course, these exports, as well as the imports of oil and shoes, are included in the customs returns for the port of Dairen, but North Manchuria's proportion of this trade does not appear.

NANKING CONSULAR DISTRICT.

By Vice Consul Alvin W. Gilbert.

LOCATION AND AREA.

The Nanking consular district comprises all of Anhwei Province and all of Kiangsu Province north of the Yangtze River, as well as the two districts of Nanking and Chinkiang south of the river. It lies between 29° and 35° north latitude and 115° and 122° east longitude. It extends along the coast from the mouth of the Yangtze River on the south to the boundary of Shantung Province on the north, and extends inland to the borders of Honan, Hupeh, and Kiangsi on the west and to those of Kiangsi and Chekiang on the south. Its corresponding latitude in North America would be between lines drawn from (*a*) a little north of Los Angeles and (*b*) San Fernando (Lower California), on the Pacific coast, to Cape Hatteras and St. Augustine, Fla., respectively, on the Atlantic seaboard. The northern line would pass about 4° north of the Bermuda Islands in the western Atlantic; while an extension of the southern line would divide the Suez Canal and cross the mouth of the Euphrates at the head of the Persian Gulf. The district is in the north-central part of China.

The area of this consular district is about 87,000 square miles. The part of Kiangsu included in the district comprises about 32,000 square miles, having about the same area as Maine, or the combined area of Massachusetts, New Jersey, New Hampshire, and Vermont. The Province of Anhwei, with its 55,000 square miles, is a little larger than North Carolina, or Virginia and Maryland combined, or one-half as large as Nevada.

POPULATION.

The estimated population of the district is about 57,000,000, or 655 to the square mile. The Province of Anhwei, with its 36,000,000 inhabitants, has a population equal to that of Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Missouri, Wisconsin, and Pennsylvania combined, although the area of the States named is more than four times as great. The Kiangsu population equals the combined population of Alabama, California, Indiana, Illinois, and Kansas, whose area is fourteen times as great.

The lines between urban and rural population in China are not so distinct as in the United States. The farmers, as a rule, live in small villages, as well as in the cities, as a means of protection against bandits. The rural population is variously estimated to comprise from 75 to 85 per cent of the total number of inhabitants.

PHYSICAL FEATURES.

The Province of Kiangsu is essentially a well-watered plain, broken by the range of hills between Nanking and Chinkiang. The Yangtze River crosses its southern part and the Grand Canal extends throughout its entire length from north to south. The two watercourses form the basis of the series of canals and tributaries which make the Province one of the best-watered sections in China. Its general features correspond to the lowlands of the Mississippi Valley, and the sections along the canal and the Yangtze River are subject to inundation at high water. A large section between Yencheng and the coast is given over to the Government salt industry, and, because of sodium deposits, is not suitable for farming purposes. The large Hungtze Lake, in the northwestern part, takes the overflow of the Hwai River and empties it into the Grand Canal. This formerly busy trade route is now higher in places than the adjoining plain, which affords an explanation for the inundations above mentioned.

Anhwei Province resembles the rolling plains of Iowa, and while somewhat broken by mineral ranges both north and south of the Yangtze River, is well watered by the Yangtze River in the south and the Hwai River in the north. In the extreme southwest are the Pe and Singan Rivers.

CLIMATE.

The climate of the district varies from that of semitropical Texas in the south to the extreme cold of Pennsylvania in the north. Nanking may be regarded as in the medium climate of the district. Its temperature (13° to 97°) and rainfall (56 inches) in 1915 are typical of the section. The rainfall (48 inches) is heavier, but the extremes of temperature (10° to 102°), are not so great as in the Hwai River country to the north, where the climate of the Middle Western States prevails.

Spring along the Yangtze River is the rainy season. Cherries ripen the last of April and strawberries the middle of May. The spring and autumn months are usually comfortably cool. June is the rainy month along the Yangtze, with about one-fourth of the annual rainfall.

POLITICAL SUBDIVISIONS.

The Provinces are subdivided into tao (counties) for the purposes of civil administration. Each tao is governed by an official called a taoyin, who resides in the principal city. Each tao is subdivided into hsien, in which the magistrate hears all civil cases. A foreign consular officer is authorized by treaty to participate in all cases involving the interests of his nationals.

The following is a list of the tao and the number of hsien in this district:

Kiangsu Province.—Hsuhai Tao, 11 hsien; Hwaiyang Tao, 13 hsien; Suchang Tao, 3 hsien in the Nanking consular district; Huhai Tao, 1 hsien in this district; Ginling Tao (Nanking), 18 hsien.

Anhwei Province.—Hwaissu Tao, 21 hsien; Anking Tao, 15 hsien; Wuhu Tao, 24 hsien.

Each city and hamlet has its elders who control its municipal affairs. The civil governor is the final civil authority in the Province. The military governor controls the military forces of the Province independently of the civil governor and outranks the latter. The commissioner of foreign affairs at each treaty port is the intermediary through whom the consuls usually conduct business affairs. All the above-named officials are appointed by the central government at Peking.

The seat of the Kiangsu provincial government is at Nanking. In Anhwei the civil governor's yamen is at Anking, the provincial capital, while the military governor's headquarters are at Pengpu, on the Tientsin-Pukow Railway. Nanking has repeatedly been the capital of China; the first time was about 317 A. D. and the last was when Dr. Sun Yat Sen established the republican government at Nanking in 1912.

EDUCATION.

Nanking is one of the educational centers of China. There still remain about 20,000 examination stalls in a fair state of preservation in the South City. In the old days, aspirants for distinction and office here wrote their competitive essays on the classics. This educational régime was transformed into the modern system mentioned below. The stalls are now idle, falling into decay, and are useful only as an attraction to tourists as a relic of a fascinating past. This past is still feebly represented by the numerous private schools scattered throughout the city and Province.

According to Dr. E. A. Ross, not one man in ten can read, and not one woman in a thousand. This is an estimate for all China. The China Mission Yearbook says that 70 per cent of the native Christians are unable to read. Other missionary illiteracy estimates place the percentage at 85.

NATIVE SCHOOLS.

Beginning in 1914, Kiangsu inaugurated a provincial school system that partakes very strongly of the character of modern education. The principal impediment is lack of qualified teachers. This is being remedied by the establishment of normal schools under the supervision of men and women who have received their education abroad. The leading institution of this kind in this part of China is the Government Teachers' College, under the able direction of Dr. P. W. Kuo, who is a returned student from the United States. This college is located at Nanking, and usually has two or three foreigners on the faculty. Another Chinese college of importance and influence at Nanking is the Conservancy College, whose dean is Mr. S. T. Hsu, also a returned student from the United States.

The following educational statistics were published in Kiangsu for 1915: Boys' schools, 5,238, with 205,080 students and 6,538 teachers; girls' schools, 255, with 31,988 students and 635 teachers. These schools included a medical school, 7 normal schools for boys, 2 normal schools for girls, 9 middle schools, 2 law schools, and a sericultural school. The two larger institutions mentioned in the preceding paragraph are not included in the statistics just given. In addition to the above, the Government Naval College, which was established at Nanking by the former Manchu régime, is also in operation under exclusively Chinese supervision.

FOREIGN SCHOOLS (SECULAR).

There is one foreign secular school in this district—the Nanking Foreign School. This school originated from the desire of a few

American families in Nanking to keep their children at home until ready for college. It began in 1911 in the home of one of the mothers as a mothers' school, three families uniting in it. The experiment soon outgrew its quarters, and the "little red schoolhouse on the hill," now known as "Hillcrest," was completed in 1914 on a beautiful site donated by one of the mothers, now deceased.

This school follows the Ithaca, N. Y., public-school curriculum. The 2 employed teachers are assisted by about 10 of the mothers, alternating in the various grades from primary to high school. The average attendance is about 50, including a number of children of British parentage. The children who have returned to the United States from this school have invariably been better prepared for their advanced work than were their new classmates in America. The tuition is from $3 Mex. to $10 Mex. per month, together with an annual assessment of $15 Mex. for each family having children in the school. The school property is worth about $3,000 gold.

FOREIGN SCHOOLS (MISSIONARY).

Nanking is also the center of American missionary activity. Missionary education in Kiangsu has been the principal factor in causing the change from the ancient to the modern educational system.

The University of Nanking, a union missionary institution, is one of the leading missionary educational institutions in China. Its campus comprises about 80 acres inside the walled city. It now owns 7 modern buildings devoted to classrooms and laboratories, 3 dormitories, a chapel, a hospital with modern operating pavilion attached, and 17 residences for the foreign faculty and 8 for part of the Chinese faculty. It has all the elements of an up-to-date institution. It has more than 500 students and more than 70 instructors, 28 of whom are Americans.

The university has the following departments (the figures indicating the 1915 registration): College, 42; medical, 38; normal training, 84; agriculture and forestry, agriculture with 13 students and forestry with 45; missionary training, 51; high school, 140; middle school, 131; total, 544.

In 1915, the Chinese Government made a grant of money to aid in the development of the department of agriculture and forestry of this institution, and transferred its forestry students from Peking to the University of Nanking. The governors of Anhwei, Shantung, Kweichow, and Kiangsu have sent scholarship students to this department, and the governor of Kiangsi has made a grant of money to it. The Forest Fund Committee of Shanghai has also transferred its students from the former German school at Tsingtau to Nanking and has established three scholarships in this department of the University of Nanking.

There are 23 lower missionary schools in the city, enrolling about 1,000, which are "feeders" to the university. In addition to these, there are several mission schools for girls, orphanages, and a hospital in the city.

Aside from the mission educational work in Nanking, there are the following mission schools, in 19 centers in this consular district, following the American graded system:

Character of schools.	Number of schools.		1915 enrollment.	
	Boys.	Girls.	Boys.	Girls.
Primary	67	19	1,438	574
Intermediate	10	4	436	130
Grammar	21	7	539	99
High	30	9	739	247
Industrial	1	....	98	....

There is a total of 167 mission schools of all grades enrolling 2,900 pupils, under 276 Chinese teachers. These schools are under the direct supervision of 41 American missionary teachers, many of whom are professionally trained teachers and all of whom are college graduates.

HOSPITALS.

There are 16 American missionary hospitals in the Nanking consular district, located as follows: In Anhwei—Anking, Chuchow, Hwaiyuan, Luchowfu, and Wuhu. In Kiangsu—Chinkiang, Haichow, Hsuchowfu, Luho, Nanking (3), Sutsien, Tsingkiangpu, Tungchow, and Yangchow. They are all conducted by qualified medical practitioners. The Foreign Memorial Hospital at Nanking receives foreign patients. All the others are for Chinese only.

In addition, there is a Japanese modern hospital at Nanking, a China Inland Mission hospital at Chinkiang, and a native modern hospital at Chinkiang. It is estimated that the average number of cases annually treated by each of these hospitals is 1,100. There are varying degrees of modern equipment. The University Hospital at Nanking is cooperating with the Rockefeller China Medical Board and is becoming a model institution of efficiency.

USE OF MODERN SCHOOL AND HOSPITAL SUPPLIES.

The use of modern school supplies in the lower grades is almost entirely restricted to textbooks that are translations of standard American texts. The higher institutions, missionary and Chinese, are limited only by available funds. Generally speaking, the work done is said to be equal to corresponding work in the United States.

The field of the 16 modern hospitals is a population of 57,000,000.

The installation of foreign school and hospital supplies in this district is dependent, to a marked extent, upon the use of the English language in the work, as well as upon the available funds. The mission schools have been the pioneers while the Chinese institutions of higher education are adopting English texts only where it is impossible to secure a text on the subject in Chinese. Many of the texts in the lower grades have been translated into Chinese, and, as good translations of the higher texts appear, English textbooks will be correspondingly restricted in use.

AGRICULTURE.

The principal occupation of the people of this district is farming. In northern Kiangsu and Anhwei wheat, rye, millet, corn, rice, groundnuts, beans, and sweet potatoes are grown, ranking in importance in the order given; while in the south and along the

Yangtze River rice, wheat, groundnuts, hemp, cotton, and corn are the crops produced. The planting and harvesting' season are shown in the following statement:

March to May.—During this period the crops sown include corn, kaoliang, yellow and other beans, peanuts, sesame, cotton, millet, rice, tobacco, radishes, cucumbers, melons, carrots, pumpkins, snap beans, turnips, gourds, cinnamon vine (tubers several feet long), lettuce, celery, and edible lily. The crops harvested during this period include barley, early wheat, garlic, onions, leeks, lettuce, and celery.

June to August.—The crops sown include sweet potatoes, late corn, buckwheat, and cabbage (Chinese). Those harvested include wheat, kaoliang, corn, peas, white beans, snap beans, millet, lily bloom, melons, cucumbers, gourds, lily roots, and pumpkins.

September to November.—The crops sown include wheat, white beans, peas, barley, early wheat, onions, leeks, garlic, and spinach. Those harvested include sesame, sweet potatoes, peanuts, beans, cotton, buckwheat, rice, pumpkins, carrots, turnips, tobacco, cinnamon tubers, and lettuce stalks.

Winter.—The crops harvested include cabbage and garden greens.

The agricultural department of the University of Nanking is developing experiments, which are already bearing fruit, in improved seed selection, time of planting, cultivation, rotation of crops, etc.

The most primitive implements are in general use. Modern implements and methods must await the time when the farmers' buying capacity has increased.

The plow in use is light, like a large "single-shovel" plow. The harrow consists of two light parallel pieces of wood with thin spikes. The drill for wheat has three boots, with no fertilizer box; and that for corn has two boots, with no fertilizer box. A good stone roller is used. The spade, pick, and hoe are clumsy, but cheap and effective for their purpose. Animals are used for farming purposes as follows: Oxen and water buffalos, 80 per cent; ponies and mules, 5 per cent; donkeys, 15 per cent. Human and animal manure, ashes, bean cake, and sediment from rivers, lakes, and ponds are used as fertilizers. The fertilizer is usually dried, pulverized, and dropped in the hill, or tossed with a shovel over the wheat and kaoliang fields.

Comparatively little money is loaned on crops. The harvest is immediately marketed to supply local demands, or it is bought up by representatives of merchants or speculators on the fields, who pay for it in notes issued by the purchaser on the strength of his assets or his reputation. The crops are carried to the waterways and railways on barrows, donkeys, and carts.

MINERALS AND MINING.

In May, 1911, the Industrial Taotai of Nanking organized a mining and mineral department under the supervision of an American engineer. Plans were made to equip a complete laboratory suitable for analysis and metallurgical tests of the ores in this section of China. Before anything was accomplished, the revolution overthrew the Government and nothing has since been done.

No Government mineral explorations have been made in this district. The Chinese have opened two mines of an inferior grade of coal. One is at Lungtan on the Shanghai-Nanking Railway between Nanking and Chinkiang; the other is near Chuchow, Anhwei, about 30 miles north of Pukow on the Tientsin-Pukow Railway. There are other coal and iron deposits in this vicinity that are untouched.

One of the important features of the industrial progress in the district is the development of iron-ore mines at places on the Yangtze River. Japanese companies are the operators; light railways have been constructed, and also very large wharves. The ore is all shipped to Japan. The places are accessible at all times of the year to large ships. One mine is about 30 miles above Wuhu, and the other at Tsaishiki, about 15 miles from Wuhu. This company is reported to have mined 80,000 tons of ore. In this connection it is interesting to note that a Japanese company transported 85,390 tons of iron ore from the Tayeh mines near Hankow to its depot at Wuhu for eventual shipment to the Yawata Ironworks at Moji, Japan. The iron ore is stored at Wuhu, as the larger ships are not always able to call at Hankow because of low water.

Bowlders of a high-grade hematite project from a spur of Purple Mountain east of Nanking, and strata of bog ore appear in close proximity. These deposits are on Government land, and no serious attempt has been made to develop them. The bowlders of hematite, however, are gradually being chipped away and carried to the arsenal.

The administration of mines is under the control of the civil governor, who acts solely as the representative of the central Government in these matters. The attitude of officials toward foreign investments varies with the officials. The general tendency, however, is to favor them. In none of the above-named mines is foreign machinery or method in vogue. The coal mined is not sufficient for local consumption, and is of too poor a grade for house use.

WATERWAYS.

Before the completion of the Tientsin-Pukow Railway in 1912, this district was entirely dependent upon the Yangtze and Hwai Rivers and the Grand Canal, with their tributaries, for interior transportation facilities. (See "Physical features" for decription of these waterways.)

With the exception of the Hwai and Yangtze Rivers, these waterways are most uncertain, as they are subject to floods and to drouth. High water in the canals in summer prevents traffic, because the displacement of the junks causes an overflow into the adjoining fields. Low water in winter stops traffic until there is sufficient flow to navigate. (See "Treaty ports, Chinkiang.") It is estimated that there are about 2,000 miles of waterways in this district.

Steamers ply on the Yangtze, as well as numerous lines of launches, which also navigate the canals and the Hwai River and smaller streams. The major portion of the water traffic on the canals and streams, other than the Yangtze River, is carried on by junks varying in size from a few hundred pounds capacity to 200 tons. The small steam launches are used very extensively as passenger carriers, as well as for towing junks. The junk traffic is almost entirely under the jurisdiction of the Native Customs, and the dues derived from it at the port of Wuhu (the only port giving statistics) are almost double those of the Maritime Customs. The goods transported inland and outward to and from five important places are shown in the following statement:

Chihchowfu.—Goods sent to this place from Wuhu include cotton piece goods, kerosene, paper, and sugar. Articles received from it at Wuhu include beans, rice, wheat, charcoal, coal, garlic, ginger, incense powder, silk cocoons, vegetable tallow, and tea.

Hochow.—Goods sent to this place include cotton piece goods, cigarettes, kerosene, wood oil, paper, sugar, and tobacco leaf. Articles received from it include beans, rice, wheat, cotton, groundnuts, and sesame oil.

Luchowfu.—Goods sent to this place include cotton piece goods, cigarettes, coal, iron, gypsum, ironware, kerosene, wood oil, and sugar. Articles received from it include beans, rice, wheat, white alum, fresh eggs, feathers, hides, groundnuts, indigo, and vermicelli.

Ningkwofu.—Goods sent to this place include cotton piece goods, cigarettes, chinaware, cotton yarn, indigo, iron, kerosene, paper, soda, sugar, and tobacco leaf. Articles received from it include beans, rice, wheat, paper, silk cocoons, and tea.

Taipingfu.—Goods sent to this place include cotton piece goods, cigarettes, indigo, iron, paper, sugar, kerosene, and tobacco leaf. Articles received from it include beans, coal, rice, and wheat.

The great Ningkwofu tea district in southwestern Anhwei is reached from Wuhu by canal, but much of the produce from this district finds its outlets to the markets through Poyang Lake and the Yangtze River to Kiukiang in Kiangsi and to Hankow in Hupeh, and via the Kiang to Hangchow in Chekiang. The same is true in the case of the silk industry of southwestern Anhwei.

The following trade centers on these inland water routes are of local importance in this district:[1]

Pengpu, the present seat of the provincial military government, is located on the Hwai River at the Tientsin-Pukow Railway bridge, 109 miles north of Nanking. Under the prestige of the military governor, it is fast becoming an important inland trading center for beans, wheat, other farm products, eggs, etc. Several foreign firms there occupy spacious godowns, and it is the only place in the interior of the district in which foreign merchants are permitted to reside.

Chengyangkwan, 30 miles up the Hwai River from Pengpu, is a favorite distributing center for the surrounding territory on both sides of the river. If lies within the rich agricultural region of northern Anhwei, collecting native produce and distributing foreign products, practically all of which pass through Pengpu.

Liuanchow, 67 miles southwest of Chenyangkwan, is on a small tributary of the Hwai River. It sends out a stream of farm products and distributes a considerable amount of foreign imports. It is on the railway that is projected between Pukow and Sinyang on the Peking-Hankow Railway, and is in the center of the rice section. Rice is the principal export from Wuhu, which port is located about 200 miles to the southeast, on the Yantze River.

Luchowfu is another equally important distributing center in the Chao Lake region. It is 60 miles east of Liuanchow, and is most easily reached from Wuhu.

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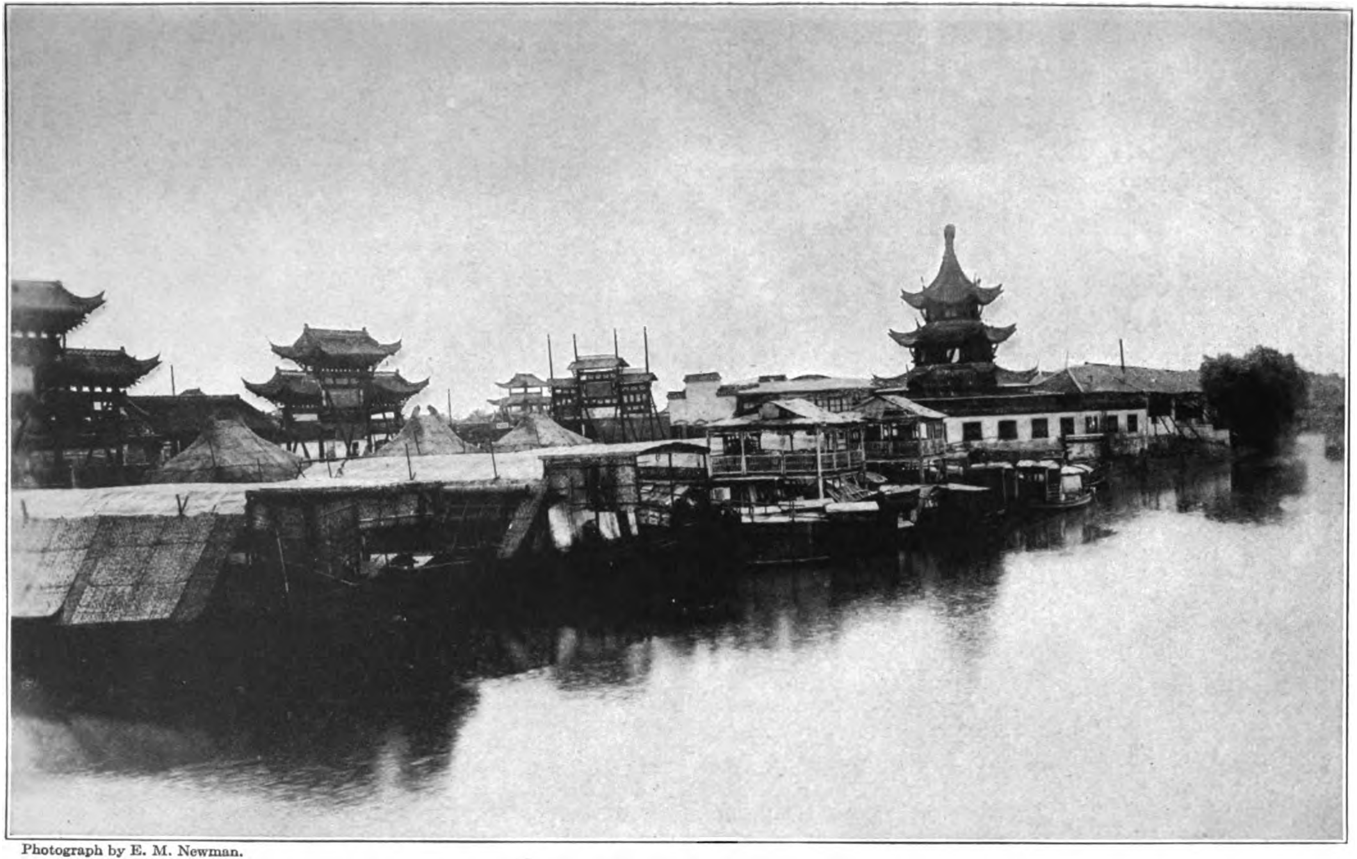
[1] It has been impossible to obtain definite information regarding any of the important inland centers, and the list given should be regarded merely as a very incomplete index.



Photograph by E. M. Newman.

FIG. 45.—RIVER FRONT, NANKING.

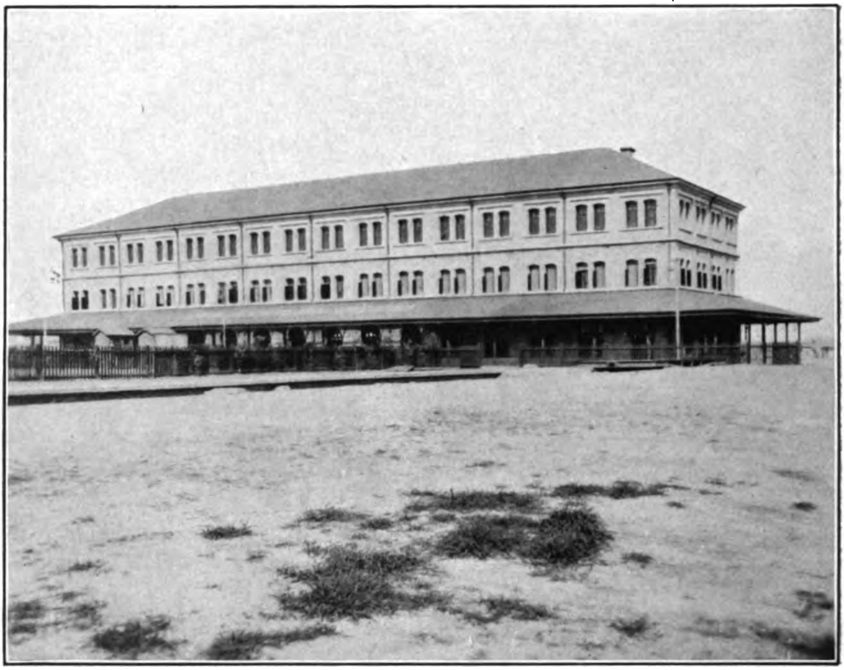


FIG. 46.—TIENTSIN-PUKOW RAILWAY TERMINAL STATION, PUKOW.

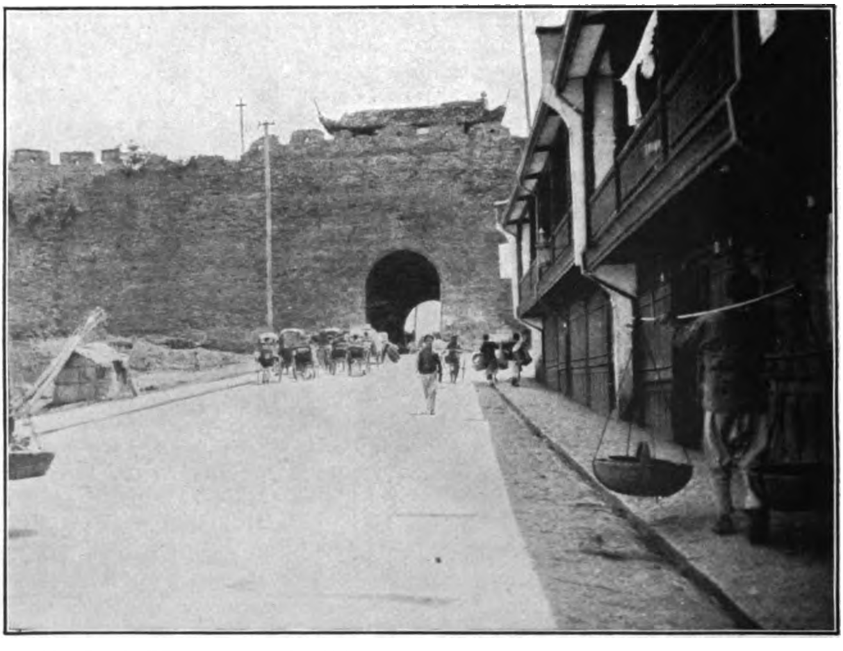


FIG. 47.—GATE AFFORDING ENTRANCE TO WALLED CITY OF NANKING FROM HSIAKWAN.

Other trading centers in Anhwei north of the Yangtze River are Sheochow, Tsungyangchen, Sanho, Shucheng, Yingchowfu, Tingyuan, Taihu, Yuntsao, Wuweichow, Hwaiyuan, Hochow, and Chaohsien.

Trading centers in Anhwei Province south of the Yangtze River include Wanchih, Ningkwofu, Hweichow, Nanlinghsien, Tunki, Suining, Ihsien, Kimen, Wuyuan, and Chichowfu.

Those in Kiangsu Province north of the Yangtze River include Luho, Yangchow, Taichow, Kaoyu, Hwangkiao, Siennumiao, Fanchwan, Hinghwa, Tungtaihsien, Paoying, Hwaianfu, Tsingkiangpu, Suchien, Yaowan, Haichow, Yencheng, and Jukao.

Those in Kiangsu south of the Yangtze River include Kaoshun and Liyanghsien.

In addition to foreign goods, which find their way into the interior through these distributing centers, substantial imports of Chinese manufactures, foreign style, from factories at Shanghai, are absorbed. Among the most prominent are candles, matches, and soap. The Chinese products from Kiangsu which enter into the export trade from the above-named centers are sesame oil, eggs, chickens, cattle, pigs, and lard. The last five articles usually reach the foreign market through the International Export Co. at Nanking.

There are no established rates for transportation on these inland waterways. Each line charges what the traffic will stand at the time. This is also true of the Yangtze River steamers. Each line, however, has its freight schedule, which is subject to change in competition with its rivals.

RAILWAYS.

The railways in operation in the Nanking consular district are the Shanghai-Nanking Railway, 193 miles long; the Tientsin-Pukow Railway, 233 miles long (in this district; full length, 626 miles); and the Lung-Hai Railway, about 50 miles in this district, which connects the Peking-Hankow line at Chengchow, Honan, with Hsuchowfu on the Tientsin-Pukow Railway in Kiangsu.

The first two lines named were constructed by means of British loans. British engineers and managers have general supervision over them until the loans are repaid. The construction materials and rolling stock are largely of British manufacture. A small percentage of American railway timbers were used in the construction of the Tientsin-Pukow line, and this line also has a number of American engines and hand cars. The Lung-Hai line is said to have been financed by Belgians.

There is no railway construction in progress in this district at the present time. The Lung-Hai line is surveyed to its seaboard terminus, Haichow, and the Changsha-Nanking line has completed the survey. As these lines are dependent upon foreign loans, it is probable that construction will begin on them as soon as funds are available. The latter line, the Ning-Siang Railway, will be more than 600 miles long and will connect Nanking with Changsha in Hunan, passing through the tea and silk districts of Ningkwofu and Hweichow, respectively, on past the famous potteries at Kingtehchen in Kiangsi, and through Nanchang, the capital of the same Province. This line taps the heart of China's present developed mineral wealth.

The roadbed for the Pu-Sin Railway from Wuhu, about 30 miles from Nanking, to Sinyangchow is completed, and buildings for stations have been erected, but no rails have been laid.

ABSENCE OF TRAMWAYS AND ROADS.

There are no tramways in this district. Nanking has a standard-gauge steam railway leading from the river front to a point within the walled city about 7½ miles away. It makes connections for passengers and freight with the Shanghai-Nanking Railway.

A contract for a city tramway at Nanking was let to a German firm in the spring of 1914. The survey was completed, and an entrance from Hsiakwan through the city wall into the city was made the same year, but the opening of the war stopped operations.

There are no real roads in this district. There are footpaths, and what were good roads during the Ming Dynasty 600 years ago but are now, for the most part, impassable for vehicles of any kind. Heavy transportation is confined to waterways and railways.

POSTAL FACILITIES.

The Chinese Post Office, under the supervision of foreigners, is very extensively organized and efficiently managed throughout this district. Every village of importance has a money-order and domestic parcel-post office and regular mail deliveries. Foreign parcels may be mailed at the treaty ports of Chinkiang, Nanking, and Wuhu. The routing of the mails is facilitated by the waterways and railways.

British and Japanese post offices are located at Nanking.

As the Chinese Post Office is not in the Postal Union, it can not issue money orders for foreign countries. Americans in the district, therefore, must make use of the Shanghai facilities, or of the foreign facilities at Nanking.

A reply from New York should be received in Nanking within three months, under normal conditions.

TELEGRAPHS.

The telegraph service is a Chinese Government monopoly and can not be said to be efficient, though it is fairly reliable. The fundamental weakness seems to be in its delivery service. Telegrams can be sent from the ports to any part of the world, via the cables at Shanghai, at established rates. The domestic rate for messages in a foreign language is 9 cents Mex.[1] per word for any destination in the same Province, and 18 cents Mex. per word for destinations outside of the same Province. Messages in the Chinese language are sent for 6 and 12 cents, respectively. The rate to Washington, D. C., is $1.65 Mex. per word. In all cases, the address is charged for.

All telegraph supplies are purchased by the buying agents in Shanghai or Peking.

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[1] See footnote on p. 84.

TELEPHONES.

The telephone system in Nanking is a Government institution and gives rather unsatisfactory service. The rates provide for a deposit of $20 Mex. upon installation and a charge of $5 Mex. per month to subscribers. The system connects Hsiakwan with the walled city. The subscribers are as follows: Government offices, 135; foreign firms, 14; Chinese firms, 22; others, 215. It is the common battery system. The materials are purchased wherever possible. An efficient organization could treble the subscription list.

Complete specifications were drawn up in 1917 for a very modern telephone system, but early in 1918 bids had not yet been invited.

NEWSPAPERS.

There are no widely circulated newspapers published in the Nanking district. The Sin Wan Pao and the Shun Pao (Chinese), and the leading foreign newspapers in Shanghai—the China Press, the Shanghai Gazette, the Shanghai Mercury, the Shanghai Times, and the North China Daily News—are widely read in this district, and are depended upon for political and trade news.

PUBLIC WORKS AND SANITATION.

There are no modern irrigation methods in vogue in this district. The ancient Chinese system of water-wheels propelled by human power is quite general.

The Hwai River Conservancy, under the general direction of the American Red Cross, is still in its preliminary stages. The objects are (1) to provide an outlet to the sea for the overflow of the Hwai River so as to reclaim the rich lowlands which are annually submerged at high water, and (2) to dredge the Grand Canal so as to make it a navigable waterway. The surveys have not been completed.

Generally speaking, no modern sanitary methods are used outside the treaty ports. The same is true regarding municipal administration, waterworks, fire protection, street lighting, and street improvements. Pengpu, above noted, and Yangchow (the distributing center for the Government salt monopoly) are exceptions. These two places have electric lights and the streets are wider and better kept than in the average Chinese city. A general improvement along these lines must await the future generations.

PUBLIC-SERVICE COMPANIES.

The electric light companies at Nanking, Pengpu, and Anking are Government concerns; at Yangchow, Wuhu, and Chinkiang the plants are privately owned. All are 50 cycle, alternating current, using British and German machinery. The plant at Nanking has also installed some American machinery. The local rate is 17 cents Mex. per kilowatt. The Nanking plant is entirely inadequate to supply the demand, and the management does not appear able to meet requirements.

A waterworks system for Nanking has been seriously discussed several times, but nothing has as yet been determined upon or undertaken.

TREATY PORTS AND FOREIGN CONCESSIONS.

CHINKIANG.

Chinkiang, in Kiangsu Province, is located on the Shanghai-Nanking Railway at the confluence of the Grand Canal and the Yangtze River. It is 45 miles east of Nanking and 156 miles up-river from Shanghai. Before the opening of the Tientsin-Pukow Railway, it was an important distributing center, but is now declining on account of the shifting of trade to the railway, which makes connections at Nanking for Shanghai. It is not believed, however, that it will decline to a negligible factor in trade, because of the projected conservancy of the Hwai River and the improvement of the Grand Canal above mentioned. It has a Chinese population of about 128,000. The harbor limits are between a line due north from Consular Bluff on the east and another line due north from Golden Island Pagoda on the west. Foreign business houses and residences are restricted to the British Concession on the river front outside of the walled city. The concession is governed by a municipal council of five chosen by resident foreigners, each of whom must own property valued at not less than 500 taels (about $500 gold), and subject to the approval of the resident British consular officer in charge at Chinkiang, who is usually chairman of the council.

NANKING.

Nanking, in Kiangsu Province, has a population of about 368,000, and is the seat of the provincial government. It is located on the Yangtze River, 201 miles by river and 193 miles by rail inland from Shanghai. It is the junction of the Shanghai-Nanking and the Tientsin-Pukow Railway. The commercial settlement, where foreign firms are largely located, is at Hsiakwan on the river front, outside the north gate of the walled city of Nanking. The harbor is the full width of the Yangtze River between the mouth of the Nanking "Cut-Off" at Theodolite Point (the lower limit) and the lower mouth of the Ta Sheng Kwan "Cut-Off" (the upper limit). The harbor is about three-fifths of a nautical mile wide and over 2½ nautical miles long. It is the only port in the district having wharves for ocean steamers accessible the year round. It is the only port between Shanghai and Hankow at which facilities are provided for ocean-going vessels.

Hsiakwan is the section of the port just outside the north gate of the walled city which has been set apart by the authorities for foreign business houses. It is on the river front and conveniently located for traffic. This district is under the joint police control of the Chinese authorities and the consuls. The administration of affairs is very largely left in the hands of the commissioner of customs, who renders a semiannual statement of the receipts and expenditures—the wharfage dues being adequate for present needs.

Foreigners may reside and conduct business within the walled city if they so desire.

The consulates at present in Nanking are American, British, and Japanese. The British Government owns its consular premises.

WUHU.

Wuhu, in Anhwei Province, has a population of about 100,000. It is situated 55 miles up-river from Nanking, or 256 miles from Shanghai. Foreign business houses are located in the foreign settlement, which is under the control of the local officials. It is on the river front, and, as in the other treaty ports, shows better streets than the Chinese walled city. The harbor extends from the Pagoda to Ichishan Bluff.

The new customhouse at Wuhu, on the edge of the foreign settlement, was occupied in June, 1919.

A large cotton mill has been completed just back of the foreign settlement. The Japanese at Wuhu have a large plant where iron ore from small up-river boats is dumped, to be transferred later to ocean steamers.

This port has access to undeveloped coal mines, and ranks first in China in the exportation of rice. It is probable that it will also be connected with the Nanking-Changsha Railway (see "Railways").

There is a British consulate at Wuhu.

FINANCE AND BANKING.

There are 10 silver dollars, with their respective subsidiary coins, current in Nanking. Eight of these have their periods of fluctuation. The dollar issued by the late Manchu régime and the Yuan, issued by the late President Yuan Shih Kai, were made current throughout China by mandates. They were, respectively, intended to be used as the standard for a revised currency system; but political events thwarted their purpose. Copper 1 and 2 cent pieces and $\frac{1}{10}$-cent (brass) cash are also used in small transactions. One dollar is usually worth 11 dimes and from 2 to 7 copper cents and a few brass cash—depending upon exchange. It is necessary, therefore, in all transactions to have an understanding as to whether the deal is in "small money" (11 dimes, plus, to the dollar) or in "big money" (10 dimes to the dollar). A great many counterfeit coins are in circulation, and many have lost, and are losing, value through "sweating." It is necessary to "shroff" every coin received. In addition to the coins, there are numerous notes in circulation, issued by the various foreign and native banks in Shanghai. These are circulated at par and are used very extensively. Great care must be taken to ascertain that these notes have not been issued in Peking, Hankow, Canton, etc., as such issues are discounted at Nanking.

All foreign transactions are at present negotiated through the Shanghai banks, as there are no established connections at Nanking. Checks on Shanghai are, however, subject to a very small discount unless cashed by a local concern desiring to remit to Shanghai.

The Shanghai account is kept either in Shanghai (Tsaoping) taels or in dollars. For exchange reasons, most of the older banks (foreign) give preferential rates to the tael account. Some of the new banks make no distinction. The tael is not a coin, but a varying unit of value of 1 ounce (one-sixteenth of a pound) of silver. It is not the same in any two Provinces, and is seldom the same in two adjoining trade centers.

The Director of the Mint at Washington, D. C., gives quarterly values for 16 different taels and four different dollars in China. The tael values (except that of the Haikwan tael) apply to specific ports only, while the dollar values apply to all China.

It would seem therefore, that the dollar should be preferred because of its general use. This advantage is more than counterbalanced, however, by the fact that the banks will not convert gold into dollars except through taels. For example, $1,000 gold equals 999 taels equals $1,320 Mex., the rates of both taels and Chinese dollars being variable quantities.

There are no foreign banks in this district.

Chinese banks are numerous, and are engaged in exchange, in advancing funds to merchants on approved security at 1 to 2 per cent per month, and in transmitting credits to near-by places.

The average Chinese merchant in this district seldom deposits his money. It is kept in his own possession. The Chinese banks are, therefore, owned by individuals of wealth. A merchant who is not a member of the local chamber of commerce would find it very difficult to secure a loan at a bank. Some of the Chinese banking corporations of Shanghai operate in this district. They negotiate both foreign and domestic paper, and greatly assist in the movement of produce and goods. These banks offer equal facilities for tael and dollar transactions and accounts, and thus more readily lend themselves to the development of trade than do the foreign banks; but they also have the double exchange system of converting gold into Mexican or other dollars.

MANUFACTURING AND OTHER INDUSTRIES.

Agriculture and salt evaporation are the two industries native to this district. The principal crops are rice, beans, wheat, groundnuts, corn, sesame, and cotton. The production of the rice fields of southern Anhwei and of the salt-pans of eastern Kiangsu is entirely under Chinese supervision. The acreage of rice is uncertain, but the yield is the largest for any one section in China.

NATIVE INDUSTRIES.

The flour mills in the district equipped with modern machinery are located at Haichow, Tsingkiangpu, Yangchow, Chinkiang, Wuhu, and Taichow; the bean mills are at Chinkiang, Nanking, and Wuhu; the cotton mills are at Chinkiang and Tungchow; and the rice mills are at Wuhu and Nanking. The products of these mills, with the exception of the bean-oil mill at Chinkiang, do not leave China. They are all under Chinese management and supervision.

The field is capable of considerable expansion in the number of these mills, which are totally inadequate to supply the export demand under normal conditions. The cotton and flour mills are successfully competing with the foreign products on the local markets.

There are numerous egg-drying plants along the Grand Canal, the Tientsin-Pukow Railway, the Yangtze and the Hwai Rivers—several of which are equipped with foreign apparatus. During the past decade this industry has risen from nothing to a very noticeable place in the export trade of the district. Several of these inland factories are probably owned by Shanghai foreign firms which engage local Chinese to operate them. Many of them are known, however, to be purely Chinese enterprises. This industry is also capable of considerable expansion.

The silk industry, though generations old, is in a backward state. Its possibilities are not apparent to the present generation of manufacturers, who stolidly plod along with their crude, primitive, indifferent methods of raising diseased cocoons along with healthy ones and make no effective attempt to improve their mulberry-leaf supply for the silkworms.

The click of the looms is so general in Nanking that it has been said that every home is either a silk or a cotton factory. The hand manufactures range from the cotton yarn belt to the once famed gold tapestry with which the palaces of emperors were decorated. These workers have not learned the value of combination; hence modern methods are yet to be introduced.

There are modern cotton mills at Tungchow, and a steam filature at Chinkiang. The cotton mills are owned by the Chinese merchant prince, Chang Chien, and are proving a profitable venture for the owner as well as advantageous for the Chinese cotton market.

The extension of the cotton-manufacturing industry will depend upon the answer to the question as to whether China, or this section of China, is to produce sufficient raw cotton to supply the local demand for cotton goods and yarn. If this section can produce the raw cotton, the mills, like the flour mills, will drive foreign products from the market and will send their products abroad.

The development of cotton manufacturing in general, therefore, appears merely to be waiting for the proper stimulus, namely, organization on a sufficient scale. The same is true of the silk industry.

FOREIGN INDUSTRIES.

There is only one foreign manufacturing establishment in this district—the International Export Co. (Ltd.), a British corporation located at Nanking.

This company has an extensive factory on the river front adjoining the Shanghai-Nanking Railway dock. It markets desiccated and frozen eggs, frozen game and poultry, meat, beans, sesame seed, hides, lard, feathers, etc. The annual output at Nanking is valued at several million dollars. The concern ships most of its products to England and the Allies. This is the only factory on the Yangtze River that ships frozen products abroad. The eggs are obtained from Kiangsu, Honan, Anhwei, and Shantung. Most of the cattle and hogs come from Honan, Kiangsi, and Shantung.

An American oil company has leased for 10 years a frontage at Pukow where oil will be discharged directly from ocean tank steamers.

SUMMARY.

The lines along which trade can be developed most readily are:

First, the organization of the vegetable-oil, silk, cotton, and mining industries, with the installation of modern methods of securing the raw products and of manufacturing the finished products for export.

Second, with normal freight rates, the working up of a stable trade in American piece goods, groceries, and metals, including machinery, etc.

COMMERCE OF THE PORTS: INTRODUCTORY SUMMARY.

The table below gives the total imports and exports, foreign and Chinese, through the Maritime Customs at Wuhu, Nanking, and Chinkiang, the three treaty ports in the Nanking consular district, during the years 1904, 1913, and 1917; the figures for the three ports have been combined in the single table:

Imports and exports.	1904	1913	1917
Imports of foreign goods:			
From foreign countries and Hongkong	$3,064,453	$5,371,967	$8,389,791
From Chinese ports	17,819,992	12,044,656	23,552,433
Total foreign imports	20,884,445	17,416,623	31,942,224
Reexports of foreign goods:			
To foreign countries and Hongkong			
To Chinese ports	134,021	528,951	1,968,275
Total foreign reexports	134,021	528,951	1,968,275
Net total foreign imports	20,750,424	16,887,672	29,973,949
Imports of Chinese products	6,678,650	8,253,626	16,909,290
Reexports of Chinese products:			
To foreign countries and Hongkong	11,655	133,156	1,305,036
To Chinese ports	87,823	223,993	267,777
Total Chinese reexports	99,478	357,149	1,572,813
Net total Chinese imports	6,579,173	7,896,477	15,336,477
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	1,464,327	285,764	2,992,260
To Chinese ports	16,138,175	17,727,566	16,881,997
Total exports of local origin	17,602,502	18,013,330	19,874,257
Gross value of the trade of the ports	45,165,598	43,683,579	68,725,771
Net value of the trade of the ports	44,932,099	42,797,479	65,184,683

EXPORT TRADE.

The following table shows the principal exports of native products from the Nanking consular district (ports of Wuhu, Nanking, and Chinkiang) during the years 1904, 1913, and 1917:

Articles.		1904	1913	1917	
		Quantity.	Quantity.	Quantity.	Value.
Beans	tons	28,854	67,211	5,147	$305,367
Bean cake	do		31,705	1,261	35,940
Eggs:					
Albumen and yolk	do		899	365	177,202
Fresh	number	2,034,000	4,488,100	(a)	(a)
Preserved	tons	25	91	(a)	(a)
	number		2,461,000	(a)	(a)
Flour	tons	621	9,521	11,839	968,264
Feathers	do	1,724	1,661	1,255	304,794
Groundnuts in shell and kernels	do	33,477	14,694	75,684	456,152
Hemp	do	283	631	541	101,671
Hides, cow and buffalo	do	485	341	534	368,824
Nankeens	pieces		23,459	(b) 6	5,710
Oil:					
Bean	tons		4	(c)	(c)
Groundnut	do	5,110	234	647	146,674
Rapeseed	do		78	(c)	(c)
Sesame	do	569	379	325	79,945
Wood	do			(c)	(c)

[a] Fresh and preserved eggs, 6,636,608 (number of eggs), valued at $64,477.
[b] Tons.
[c] Comparable figures are not available for 1917.

Articles.	1904	1913	1918	
	Quantity.	Quantity.	Quantity.	Value.
Rice ....tons..	334,507	147,252	100,272	$4,763,990
Seeds:				
Rape ....do....	1,847	3,081	9,061	668,598
Sesame ....do....	5,119	2,180	2,884	297,918
Seed cake..........do....	1,178	2,011	3,670	103,526
Silk:				
Raw white..........do....	121	88	71	731,887
Piece goods..........do....	250	160	217	2,926,166
Skins, goat..........number..	1,196,787	61,106	173,512	104,689
Tallow, animal..........tons..	....	430	38	10,979
Wheat..........do....	6,077	2,799	6,793	332,787

The declared-export return of the Nanking consulate represents only a very small portion of the shipments from the Nanking consular district to the United States, because most of them are included in the Shanghai statement. In 1918 the only item was one covering two shipments of curios (chinaware), valued at $2,464. In 1917 the items were as follows: Curios, $6,106; eggs, frozen, in tins, 1,227,136 pounds, valued at $101,169; eggs, whole, 24,000 dozen, valued at $3,218; hides, ox, 1,262,524 pounds, valued at $387,009; all other articles, $306; total value, $497,808.

The best season for collecting eggs is from February to May; for marketing game and live stock, from September to March; and for harvesting beans, sesame seed, etc., from August to November.

A general direct export trade from this district to foreign countries must await the advent of commission houses, shipping communications, etc.

Manufactures capable of being exported from Nanking in commercial quantities include brassware, wood carvings, wickerware, bird cages, gold tapestry, silk brocade, and porcelain.

Upon the payment of one-half the export duty at interior places of origin, a transit pass (see "Import trade") will be issued exempting such exports from all other taxation en route to port of exportation.

IMPORT TRADE.

The following table shows the principal net imports of foreign goods at Wuhu, Nanking, and Chinkiang, the three treaty ports in the Nanking consular district, during the years 1904, 1913, and 1918:

Articles.	1904	1913	1918	
	Quantity.	Quantity.	Quantity.	Value.
Bags, all kinds..........number..	5,246,630	3,628,494	1,809,585	$257,992
Bêche de mer..........tons..	184	102	109	79,749
Cambrics, lawns, and muslins..........pieces..	....	20,095	12,507	60,416
Candles..........tons..	....	689	1,881	160,525
Cement..........do....	....	1,204	....	....
Chintzes and plain cotton prints..........pieces..	80,207	23,887	32,413	112,396
Cigarettes..........thousands..	....	612,291	753,924	3,289,931
Cigarettes..........value....	$63,582	....	....	....
Copper..........tons..	2,698	3,302	25	24,353
Cotton flannel..........pieces..	7,923	2,751	23,858	100,657
Cotton Italians, venetians, crêpe, and lastings....do....	252,531	203,524	155,263	988,920
Cotton yarn..........tons..	10,045	4,522	14,020	7,171,963
Drills..........pieces..	126,354	41,752	49,240	234,704
Dyes..........value..	$7,240	$49,880	....	45,419

Articles.	1904.	1913	1917	
	Quantity.	Quantity.	Quantity.	Value.
Fans....number..	1,797,130	9,952,301	12,202,140	$132,446
Glass, window....boxes..	5,509	8,634	5,725	39,893
Iron nail rod and wire....tons..	6,288	8,218	(a)	(a)
Jeans....pieces..	28,552	155,830	126,770	548,847
Lead....tons..	670	370	108	22,123
Machinery....value..	$49,869	....	(a)	(a)
Matches....gross..	2,980,555	3,125,435	1,035,080	392,791
Needles....thousands..	25,460	15,074	81,202	80,144
Oil, kerosene....gallons..	13,664,072	15,488,432	16,614,418	3,216,224
Paper and cardboard....tons..	....	1,242	(a)	(a)
Pepper, black and white....do....	254	231	303	112,410
Sandalwood....do....	3,474	2,091	1,793	280,641
Seaweed and agar-agar....do....	2,106	338	2,079	110,899
Sheetings, gray....pieces..	188,792	57,230	36,840	147,071
Shirtings:				
Dyed....do....	11,249	5,030	(a)	(a)
Gray....do....	630,402	408,971	242,130	993,681
White....do....	288,728	296,913	246,322	1,150,933
Soap....value..	$27,045	$66,678	....	274,834
Soda....tons..	642	3,245	1,381	78,047
Steel....do....	377	826	167	25,005
Sugar....do....	50,075	470,828	48,633	6,533,989
T cloths....pieces..	57,855	20,880	40,358	110,792
Timber:				
Hardwood....cubic feet..	....	6,010	3,276	1,505
Softwood....square feet..	....	5,446,957	378,556	17,580
Tin plates and slabs....tons..	63	2,357	2,908	521,647
Turkey reds....pieces..	86,418	34,459	41,677	134,992
Umbrellas....number..	131,649	94,511	154,751	81,076
Velveteens....yards..	41,021	182,150	65,294	12,749
Woolen goods....do......	65,672	19,873	(a)	(a)
Woolen goods....pieces..	18,521	2,007	(a)	(a)

a Comparable figures are not available for 1917.

The above list of imports represents most of the important staples, the demand for which is comparatively steady. It will be noted that cotton and woolen goods make up more than one-third of the list. Machinery is ranked as a staple import, but does not appear in the list for 1913 and 1917 because it reached its destination in the interior via the transit pass from Shanghai. Railway supplies, while an important item of importation, do not constitute a regular import except during railway construction. As stated above, practically everything of foreign origin is imported at present through the medium of Shanghai. The little that is imported direct is bought on a cash-with-order basis.

American exporters, under normal freight and exchange rates, have found a profitable business in cotton piece goods. The following percentages of the respective imports were credited by the customs as American:

Articles.	1904	1913	1915
	Per cent.	*Per cent.*	*Per cent.*
Sheetings....	40	36	50
Drills....	90	46	12
Jeans....	50	....	....
Oil, kerosene....	50	30	25

The above proportions are merely approximate, as very large quantities of imports are landed from non-American bottoms.

A transit pass may be obtained for imports of foreign origin destined for an interior place, upon the payment of a surtax of one-half the import duty. This pass is supposed to exempt the goods from all further taxation. The transit pass is not necessary if the goods are reexported to another port from original port of entry. A destination tax (lotishui), however, is assessed on such transit-pass goods in many localities in the Nanking consular district, the usual reply to a protest against this tax being that the transit pass exempts the goods from further taxation en route and that the goods are not exempt from further taxation after they have arrived at their destination. This argument has been a satisfactory reason (to the local officials) for levying this tax immediately the transit pass has been surrendered—although the treaty expressly stipulates that the transit pass "shall secure for foreign imports, whether in the hands of Chinese or foreigners, in original packages or otherwise, complete immunity from all other taxation, examination, or delay." (American commercial treaty, 1903, Article IV, par. 2.)

There are no foreign importing houses in the Nanking consular district other than two oil companies.

SHIPPING FACILITIES FOR TRADE WITH UNITED STATES.

All shipping connections with foreign countries are made at Shanghai, the American Express Co. being a convenient forwarding agent. There are four regular lines of river steamers and the Shanghai-Nanking Railway connecting this district with Shanghai. The facilities of the Nanking harbor for ocean traffic have been mentioned under "Treaty Ports and Foreign Concessions, Nanking." The harbor dues are: Vessels under 150 tons, 1 mace per ton; over 150 tons, 4 mace per ton. All cargo landed must pay 2 per cent of duty as a surtax for the maintenance of the port.

FACILITIES FOR TRAVEL.

Nanking is the only place in the district where fairly good hotel services are available. The Bridge House Hotel, just outside the north gate of the walled city, is under efficient British management and is conveniently located for train and river-steamer connections. It is also the agent for Thos. Cook & Sons. The rates are $5 Mex. to $12 Mex. per day. Automobiles may be hired for trips to the points of interest in and near the city. Carriages and jinrikishas are also available, and are preferable for the city trips because of the narrow streets.

The river steamers are equipped with comfortable cabins, and the food and service are usually good.

The first-class through tickets of the river steamers are interchangeable with the Shanghai-Nanking Railway either way, and the tickets of three of the lines are also interchangeable. Such an arrangement makes it easy to get stop-overs with a fair certainty of being able to continue the journey within 24 hours if that is desired. Both the Shanghai-Nanking and the Tientsin-Pukow railway lines have dining and sleeping car accommodations. These two lines connect at Nanking for Europe.

The best seasons for visiting this district are from March to May and from September to November. The period between May and September is frequently too warm for pleasure, though the weather is often ideal for excursions during this period, which finds the majority of the resident foreigners at the summer resorts of Kuling and Mokanshan. The early fall or late spring, therefore, will give the visitor the most accurate impression of the life and industries of the district.

TRADE ORGANIZATIONS IN DISTRICT.

There are no foreign trade organizations in this district.

Each port and inland trading center has its Chinese chamber of commerce, guilds, etc. Every line of trade has its own guild, such as the Piece Goods Guild, the Silk Guild, the Tea Guild, etc., and where the traders are numerous they have their provincial guilds. The provincial guilds are the arbiters of small personal disputes, with appeal to the courts. The business guilds (corresponding to labor unions) fix prices and arbitrate business disputes, the primary court of appeal being the local chamber of commerce. If the chamber of commerce is unable to render a satisfactory decision, the disputants' final appeal is to a court of law. The guild members are not obliged to present their cases to the guilds. In all important cases they apply to the proper court. The clubhouses of many of the guilds are very elaborate, and are used as headquarters for visiting members and friends.

AMERICAN INTERESTS.

The Standard Oil Co. of New York (according to customs returns) imports about 50 per cent of the kerosene oil that comes into the Nanking consular district—the remainder being credited (by inference only) to the Asiatic Petroleum Co., the formidable competitor of the American company. The American company has extensive properties at each of the three ports in this district—Wuhu, Nanking, and Chinkiang—and conducts an intensive distribution and sales system in the interior therefrom.

The Singer Sewing Machine Co. also conducts an elaborate distribution and sales system throughout this district. This company operates from its office in Shanghai and owns no real property in the Nanking district.

American interests are also involved in the operations of the British-American Tobacco Co., whose business can be estimated by the imports of cigarettes and by its tobacco cultivation and curing stations.

The American Red Cross is financing the Hwai River reclamation scheme and reconstructing the Grand Canal.

Aside from the interests just mentioned, the most general American interests in this district are those of the missionary organizations. The scope and extent of this missionary work along educational and medical lines have already been indicated. The missions also have stations and chapels for religious work in most of the important trade centers in the interior. Their general reputation is excellent, and their work, as a rule, is such as to create a favorable impression concerning Americans. The 520 American missionaries outnumber the missionaries of any other nationality by about 20 to 1; the French missionaries are next in number, but they do no medical or educational work along modern lines.

The conditions unfavorable to American trade in the Nanking district are:

(1) Lack of commission houses. There are none.

(2) Lack of direct ocean shipping facilities. There are no lines regularly touching at Nanking.

The conditions favorable to direct American trade with this district are:

(1) An apparent readiness on the part of the local merchants to deal directly with foreigners.

(2) The willingness of the banks to arrange for facilities for direct foreign trade.

(3) There is at present a large annual trade in goods of foreign origin, and such purchases are growing in importance. There is no one at present bidding to shift this from indirect to direct trade with foreign countries. This trade under normal conditions will increase several hundred per cent.

As a result of the war, the trend of trade in the Nanking district has been turned from Europe to Japan and the United States. High freight rates and adverse exchange have greatly handicapped trade with the United States as compared to that with Japan.

The most promising field for American commercial activity in this district is the development of the industries mentioned under the heading "Manufacturing and Other Industries" (see p. 592).

GENERAL TRADE SUGGESTIONS.

(1) Where possible, trade connections should be made with American firms in the field.

(2) The best method to market a commodity is to send a special representative with samples and advertising matter. In some cases, it is advisable that the representative have prompt access to a limited supply of the goods he is selling.

(3) The special representative should have connections with a well-known American house in the field. The connection should be made in Shanghai for this district until conditions make it possible to open an office at Nanking.

(4) Manufacturers of piece goods and related commodities should unite in a common sales department and send their representative to Nanking. A similar combination for iron and steel products, railway supplies, milling and mining machinery, etc., ought to find a mutually advantageous trade in the development of the industries of the district.

(5) Direct trade between this district and foreign countries will expand at the close of the war. This is the opportune time for American manufacturers and merchants to cultivate this market.

(6) Exporters should study the requirements of the market and endeavor to supply exactly what is wanted or something for which a demand can be created. It is futile to try to fit a farm harness to a water buffalo or to put a tractor in a Chinese rice paddy.

(7) In order to deal directly with the natives, a working knowledge of the Chinese language is essential.

(8) Only healthy college men of fixed habits and strong character should be sent to China.

SWATOW CONSULAR DISTRICT.

By Consul George C. Hanson.

LOCATION AND AREA.

The Swatow consular district comprises that part of the Province of Kwangtung east of 115° east longitude. Roughly speaking, it lies between the meridians of east longitude 115° and 117° 14′ and between the parallels of north latitude 22° 40′ and 25°. It occupies the same latitude as central Mexico. Its southern part lies between the same parallels of latitude as the northern half of Cuba. The Tropic of Cancer passes a little to the north of Swatow, the principal port, which is on the same parallel of latitude as Habana, Cuba.

The area of the Swatow consular district is about 15,000 square miles, being thus a trifle larger than the combined areas of Massachusetts, Connecticut, and Rhode Island.

POPULATION.

The estimated population of the district in 1909 was 5,000,000, equivalent to the combined population of Massachussetts, Connecticut, and Rhode Island, as given by the census of 1910. Most of this population is rural, no city having more than 100,000 inhabitants.

PHYSICAL FEATURES.

The district is well watered by the Han and East Rivers, with their tributaries. It is flat near the coast and gradually rises toward the southwestern part, where there are some high mountain ranges. The land is for the most part denuded of trees, though some forests exist in the mountainous regions.

CLIMATE.

The climate of the district is salubrious. The months of November, December, January, and February are delightful, the temperature never touching the freezing point. March, April, and May are rainy months, while June, July, August, September, and October are hot months. During September and October, Swatow is often visited by devastating typhoons, which create havoc among the shipping and crops.

POLITICAL SUBDIVISIONS.

The consular district practically lies within the confines of the Chaomei prefecture, which is composed of 14 hsien or districts. The prefecture is under the jurisdiction of a civil official called the taoyin and a military official called the commissioner of defense. Both these officials are responsible to the provincial government at Canton. Each district is governed by a magistrate, who also acts as judge. At Swatow there are civil and criminal courts. The Chinese Maritime Customs interests are in charge of a foreign commissioner and a Chinese superintendent, who work in conjunction. The Chinese superintendent of customs is also delegated by the Peking Government to look after affairs involving intercourse between Chinese and foreigners. At Swatow there are American, British, and Japanese consulates and French and Norwegian vice consulates.

EDUCATION.

Matters of education are in a transitory stage, because of the change from the old-style methods of Chinese learning to new westernized methods. At present there are Chinese schools still conducted along old lines, schools with a mixture of old-style and new-style learning, and schools conducted along modern lines. Chinese private schools are found in the first class, Chinese Government schools in the second, and foreign missionary schools in the third. Sons of wealthy Chinese families are taught by private tutors and perhaps receive an education that may be called more than elementary. The average Chinese boy receives only a few years' schooling (which enables him to read and write Chinese characters) in elementary schools, of which there are about 2,000 in the Swatow district. Few girls receive any schooling. There are no native colleges, technical schools, medical schools, or hospitals. American, British, French, and German missions conduct schools in places throughout the district. The American Baptist Mission has 91 elementary and 11 high schools and three hospitals in operation. The two best-known mission institutions are the Baptist Mission's Academy and the English Presbyterian Mission's Anglo-Chinese College at Swatow. The equipment of all these schools, so far as furniture is concerned, is crude and is made locally. Supplies for mission schools are received from the missions' publishing houses. There will be a slow advance in the use of foreign school and hospital supplies; it is not expected that the demand will be large for some years to come.

AGRICULTURE.

This district is purely an agricultural one, and the principal crops are sugar, rice, oranges, sweet potatoes, indigo, groundnuts, and vegetables. Because of the richness of the soil and the favorable climate, two and sometimes three crops a year are reaped. Intensive farming is widely engaged in but with very primitive implements. The water buffalo and bullock are used for plowing and other farm work, but not as beasts of burden. All carrying is done by men, women, and children. The fertilizers used are bean cake and human manure. Besides the water buffalo live stock consists of pigs, geese, and chickens, which are sold on the market or consumed by the owners. Fresh eggs constitute the only subsidiary farm product that enters into the export trade. In 1917, $201,994 worth of eggs were exported from Swatow, mostly to Hongkong and islands in the South Seas.

MINERALS AND MINING.

Mineral wealth exists in the form of deposits of coal and tin, but these have been only recently exploited. There are a few mines in operation on a small scale. The Yuan Yi Tin Mine Co. began work on its property in Kityanghsien in 1914, ore of good quality being extracted.

Wolframite ore was discovered about Swabue during the summer of 1917. Since then this ore has been found in other parts of the district, and many thousands of Chinese have been digging for this valuable mineral, which undoubtedly exists in large quantities.

COMMUNICATIONS.

Swatow, the trade port of this district, is connected with the outside world by means of steamship lines. No ocean-going steamers touch this port, but there is ample service at Hongkong, 180 miles distant, which is the main link between Swatow and foreign countries. There are British, German (in normal times), Norwegian, Dutch, Japanese, and Chinese coasting steamers plying between Swatow and Hongkong, other Chinese ports, Formosa, and British, Dutch, and French possessions in the southeastern part of Asia. Inland water navigation is carried on by means of steam and motor launches and Chinese junks. A few of the launches, especially of the passenger type, are run by foreign firms. The waterways of this district are so numerous that water communication is the cheapest and most used means of transporting merchandise from and to the interior. All important native trading centers are situated on navigable streams, and the products of the district can be easily sent by water from one place to another. As the element of time is not considered important by the Chinese, sailing junks or poling boats are more numerous by far than launches, which are practically confined to passenger traffic.

There is only one railway in this district, the Swatow-Chaochowfu Railway, 26 miles in length, connecting Chaochowfu, the principal inland city, with Swatow. This railway was constructed by a Chinese syndicate with a capital of $2,000,000 Mex.[1] (normally about $1,000,000 United States currency). Work was commenced on the line in 1904, and the railway was opened for traffic in November, 1906. The contractors were Japanese, who supplied all the material, the rails, bridge girders, and engines coming from the United States and the carriages from Japan. The rolling stock consists of 3 locomotives, 18 passenger cars, 4 vans, 24 covered and 26 open goods wagons. The freight rate is $0.02 Mex. per ton per mile. In 1915 the railway carried 1,002,643 passengers and 23,953 tons of goods. It is planned to make an extension from the present station to the harbor front in the near future. It is estimated that about $500,000 United States currency will be needed to make the necessary bridge, road-bed, and station improvements. There are no railways under construction. It is expected that lines will be constructed in the future connecting Swatow with Canton and Amoy.

The Swatow-Changlin light railway, a push-car line for carrying passengers, has recently extended its tracks as far as Chenghai, a distance of 10 miles from Swatow. It is reported that the company plans to double-track the line as soon as profits permit, when it will also be used to carry light freight.

It is reported that another light railway line will be constructed between Chaoyang and the landing place of the Swatow launches.

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[1] See footnote on p. 84.

There are no tramways, because the streets in the cities are too narrow for them and because the absence of roads outside of the cities prevents the location of such lines.

There are no roads in the district. The whole country is traversed by a network of paths along which travelers go from place to place on foot. No vehicles nor draft animals are in use on these paths. The more wealthy Chinese in going from place to place are borne in litters or chairs. These paths are kept in repair by the villages or by individuals philanthropically inclined.

POSTAL FACILITIES.

All inland towns of importance are reached by the Chinese Government Postal Service. Besides the Chinese post office, there are located at Swatow British and Japanese post offices. All these post offices accept parcel-post packages to the United States, and the British and Japanese post offices will sell money orders payable in America. Mail is sent to and received from the United States through the post offices mentioned above via Shanghai or Hongkong. Mail matter from New York City requires about 30 days to arrive at Swatow.

TELEGRAPHS AND TELEPHONES.

The Chinese Government Telegraph Service operates a line from Swatow to Amoy, one to Kaying, and one to Canton, all overland. There are no cables. The telegraph rates are $0.09 Mex. per word for telegrams sent within the province of Kwangtung and $0.18 Mex. per word for telegrams sent to places within China.

There are no telephones in this district, except two private lines—one a railway line connecting Swatow with Chaochowfu and the other a water-works line connecting Swatow with Chenghai. Several schemes for installing a system have been broached, but none have come to fruition. It is believed that a telephone system will be installed in Swatow some time in the near future.

NEWSPAPERS.

There are no foreign newspapers published in Swatow, but foreign publications from Hongkong and Shanghai are received, principally by foreigners. Two Chinese newspapers, the Ta Tung Pao and the Kung Yen Pao, with a combined circulation of about 4,000 copies, have been established at Swatow for five years. The advertising rates of these papers for 100 Chinese characters are as follows: For one week, $2 Mex.; for two weeks, $3.60 Mex.; for one month, $6.40 Mex.; for three months, $16.80 Mex.; for six months, $28.80 Mex.; for one year, $48 Mex. Two other vernacular newspapers of small importance have recently come into existence.

PUBLIC WORKS AND SANITATION.

Sanitary conditions in the Chinese cities of this district are bad. Streets, except where they are built and kept under repair by foreign supervision, are not in good condition. There are no sewerage systems nor public means of fighting fire, except at Swatow, and it is doubtful whether these will be adopted generally in the near future.

There are four electric-lighting plants in the district, at Swatow, Chaochowfu, Hsingning, and Kaying. The Swatow plant (Swatow Kaiming Electric Light Co.) was erected at a cost of $80,000 United States currency. At the beginning of 1919 it supplied 19,200 lamps.

A number of Delco light plants were sold in the Swatow district during 1918, most of which are operated on a commercial basis at a charge of $0.80 Mex. to $1.20 Mex. per lamp. Their small cost especially appeals to the Chinese. Electric lighting has become very popular among the Chinese, and during the next few years considerable development along this line should occur.

The Swatow waterworks (the only ones in the district) were constructed by a Hongkong engineering firm at a cost of about $450,000 United States currency. The service reservoir has a capacity of 800,000 gallons and the water is pumped from the River Han at Ampow. Construction work was finished in 1912. The quality of the water is good.

TREATY PORT OF SWATOW.

Swatow is the only treaty port in this district. There are no foreign concessions at Swatow, the city being under the control of the Chinese officials. Its population consists of more than 80,000 Chinese and about 700 foreigners. The only public activity of foreigners is manifested in the formation of committees employed in collecting and expending funds for the construction and maintenance of roads and pathways in the neighborhood of the dwellings where foreigners live. There is no limitation to the area in which foreigners may reside. The fact that there are no purely American general exporting and importing firms at Swatow is unfavorable for the development of American trade. British and German houses predominate.

FINANCE AND BANKING.

The various local currencies, fictitious and actually existent, may be enumerated as follows: The Swatow tael, the local or 7-mace dollar, the dragon dollar, the ".7.2.7" dollar, subsidary silver coins, and cash. To this list may be added the Haikwan or customs tael, which, however, does not constitute a business currency.

The Bank of Taiwan (Japanese) is the only foreign bank at Swatow. It does not deal in foreign exchange except between Swatow and Japan. Consequently, Hongkong is the clearing center for this district. The Bank of Taiwan pays 4 per cent on fixed deposits and 2½ per cent on current deposits per annum.

The principal functions of Chinese banks are to lend money to merchants and to issue paper currency. Overdrafts are common, and rates of interest vary from 7 to 18 per cent per annum throughout the year. The banks advance no money against real estate or crop security. Their profits arising from the issue of paper money are said to be very large.

MANUFACTURING AND OTHER INDUSTRIES.

There is little manufacturing in the Swatow district. There is one knitting mill, engaged in the manufacture of socks, and about a dozen cloth mills, manufacturing native cotton cloth, operated by Chinese capital along modern lines. Part of the output is consumed locally and part is exported to the South Seas for consumption among the Chinese residents there. Purely native industries comprise the manufacture of grass cloth and drawn work, cotton goods made in the homes, sugar from sugar cane, native wines, bamboo ware, bean oil, earthenware, chinaware, fans, liquid indigo, joss sticks, paper, ramie thread and twine, and paper umbrellas. Modern industries, though few in number, show a tendency to increase; the purely native industries, with the exception of the sugar industry, hold out little hope for increase in the future; the sugar industry has declined tremendously in recent years and appears doomed, because of the impossibility of the native sugar's competing with Hongkong refined sugars. The products of the industries mentioned above are sent largely to Chinese residents in the South Seas.

Foreign industries are few in number. There are feather-cleaning plants, under European management, a small ice plant, a soda-water plant, and a fertilizer factory, operated by a British company. The output of all these factories is small and insignificant. In 1882 there was erected at Swatow a large plant for the refining of sugar. After it had operated for six years at a loss, the project was abandoned and since then no attempt has been made to resume operations. There seems to be little hope that sugar will be refined at Swatow by foreign methods. The only possibility for manufacturing by foreigners on a large scale would appear to be in the establishment of cotton-goods mills, the products of which could be sold among the natives.

COMMERCE OF THE PORT: INTRODUCTORY SUMMARY.

The table below gives the total imports and exports, foreign and Chinese, through the Maritime Customs at Swatow during the years 1904, 1913, and 1918:

Imports and exports.	1904	1913	1918
Imports of foreign goods:			
From foreign countries and Hongkong	$9,309,356	$14,681,075	$15,943,673
From Chinese ports	189,279	361,521	808,361
Total foreign imports	9,498,635	15,042,596	16,752,034
Reexports of foreign goods:			
To foreign countries and Hongkong	53,086	132,110	235,039
To Chinese ports	7,515	89,751	89,828
Total foreign reexports	60,601	221,861	324,867
Net total foreign imports	9,438,034	14,820,735	16,427,167
Imports of Chinese products	14,054,126	14,140,390	26,572,617
Reexports of Chinese products:			
To foreign countries and Hongkong	596,232	912,892	1,139,461
To Chinese ports	49,418	71,379	47,814
Total Chinese reexports	645,650	984,271	1,187,275
Net total Chinese imports	13,408,476	13,156,119	25,385,342
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	3,846,651	5,133,002	9,538,813
To Chinese ports	5,832,159	4,376,927	8,516,922
Total exports of local origin	9,678,810	9,509,929	18,055,735
Gross value of the trade of the port	33,231,571	38,692,915	61,380,386
Net value of the trade of the port	32,525,320	37,486,783	59,868,244

EXPORT TRADE.

Exports from Swatow consist mostly of articles intended for consumption by Chinese in the South Seas. Without this peculiar market Swatow would have difficulty in disposing of its products elsewhere. Products are brought from the interior to Swatow by junks along the numerous waterways that abound in this region. At Swatow the goods are loaded upon coasting steamers by means of lighters and shipped to Hongkong, Bangkok, and British, French, and Dutch possessions in the South Seas. In the following table is a list of the principal articles exported (not including reexports) during the years 1904, 1913, and 1918:

Articles.	1904	1913	1918	
	Quantity.	Quantity.	Quantity.	Value.
Bags, gunny and hemp....number..	2,983,932	867,247	1,717,440	$134,891
Bamboo and bamboo ware....value..	$51,053	$140,144	....	139,808
Chinaware....tons..	1,562	4,541	2,644	857,898
Cloth, native (nankeens)....pounds..	893,467	2,533	306,000	185,052
Eggs, fresh....value..	$207,212	$172,527	....	[a] 193,723
Fans....number..	2,611,543	1,866,721	1,012,000	36,316
Flour:				
Potato....tons..	3,395	4,425	3,114	219,973
Rice....do....	870	1,109	348	27,409
Grass cloth....pounds..	770,000	852,933	1,173,333	1,907,936
Groundnuts (peanuts)....tons..	2,183	1,549	632	49,897
Indigo, liquid....do....	4,035	1,683	1,558	233,646
Joss sticks....do....	1,646	1,512	1,179	177,246
Jute skin....do....	....	1,188	....	....
Oil, groundnut....do....	1,656	1,272	1,601	264,563
Oranges, fresh....do....	8,537	13,000	11,217	600,615
Paper:				
Joss....do....	3,238	3,738	3,064	1,094,509
Other....do....	6,386	7,225	6,458	1,331,508
Pottery (earthenware)....do....	6,718	9,209	5,446	346,284
Ramie thread and twine....pounds..	....	1,549,200	776,667	198,130
Sugar:				
Brown....tons..	39,532	28,956	28,134	2,401,497
White....do....	31,571	81,333	5,766	655,190
Tinfoil....do....	207	186	119	238,779
Tea:				
Black, Oolong....pounsd..	1,954,933	478,267	273,200	88,620
Green, Hyson....do....	31,333	8,827	41,867	10,869
Tobacco, prepared....tons..	1,833	2,086	1,808	1,012,346
Umbrellas, paper....number..	176,343	173,733	225,425	56,475
Vegetables, dried, salted, and fresh, not otherwise classified....tons..	13,501	16,699	7,625	105,873
Vermicelli and macaroni....do....	863	1,122	834	73,100

[a] Fresh and preserved.

Declared exports from Swatow to the United States during the years 1913, 1917, and 1918 have been as follows:

Articles.	1913	1917	1918
Drawn work....	....	$282	$464
Feather....	$693	6,604	....
Household effects....	956	199	431
Wolframite ore....	....	11,356	458,878
Total....	1,649	18,441	459,773

The export trade is in the hands of the Chinese and is of little interest to foreigners.

IMPORT TRADE.

The imports of foreign goods at Swatow have not varied greatly from year to year during the last decade, though the few years before the European war showed a slight tendency toward an increase. The reason for this static condition is that for years no improvements have been made in transportation, banking, storage, or distributing facilities. Although a few steamers discharge their cargoes at wharves, the majority of them still unload by means of lighters. There is but one foreign bank and it does not deal in foreign exchange. Consequently most of Swatow's financing is done at Hongkong.

Each of the few foreign firms at Swatow has a comprador. Chinese firms purchase directly from stocks kept in Hongkong, there being little direct trade with the outside world except through the medium of Hongkong. Goods are sent up the country by Chinese firms by means of Chinese river junks and are subject to likin taxes at each inland customs barrier unless the goods have paid a surtax of 2½ per cent ad valorem, which frees them from these inland taxes. Goods intended for this market should be strongly packed because of the necessity of transshipment at Hongkong and at Swatow—operations that subject the packages to rough handling.

In the following table is a list of the principal imports (net) into Swatow during the years 1904, 1913, and 1918:

Articles.	1904	1913	1918	
	Quantity.	Quantity.	Quantity.	Value.
FOREIGN GOODS.				
Bêche de mer...pounds..	301,867	364,267	392,666	$171,085
Coal...tons..	56,715	65,175	19,352	337,546
Cotton goods:				
Drills...pieces..	657	2,252	1,248	7,813
Flannels...do....	28,590	40,190	13,399	75,882
Jeans...do....	9,206	26,300	10,779	67,360
Sheetings, gray, plain...pieces..	5,401	20	1,320	8,299
Shirtings:				
Gray, plain...do....	101,169	102,124	51,200	284,891
White, plain...do....	235,409	174,447	61,510	507,004
Dyed, plain, figured, etc...do....	6,015	1,445	366	3,026
T cloths...do....	28,314	14,878	4,720	18,184
Thread (spools)...gross..	....	48,124	23,918	105,256
Yarn:				
English...pounds..	72,400	2,183	a 9,233,333	a 3,639,490
Hongkong...do....	....	....		
Indian...do....	19,299,200	20,245,333		
Japanese...do....	10,000	588,800		
Fiber, hemp...do....	539,067	389,600	639,229	146,709
Fish:				
Dried...tons..	611	2,517	b 3,432	b 905,092
Cuttle...do....	898	1,794		
Flour...do....	4,911	16,566	93	6,544
Ginseng, all kinds...pounds..	24,548	17,275	13,832	199,984
Matches, Japanese...gross..	904,951	1,206,678	1,219,952	660,170
Medicines...value..	$112,800	$195,325	....	233,333
Metals:				
Iron and mild steel, new: Bars and nail rods..tons..	946	1,365	288	45,014
Iron and mild steel, old...tons..	848	864	219	10,590
Lead in pigs and bars...do....	166	144	40	9,370
Tin in slabs...do....	768	750	442	616,684
Tinned plates...do....	655	809	383	161,362
Oil, kerosene. Amrican...gallons...	5,034,803	5,056,950	2,812,780	871,121
Opium...pounds..	613,333	282,667	....	....
Rattan...tons..	313	357	217	26,705
Rice...do....	2,942	6,663	20,051	1,126,699
Sugar:				
Refined...do....	1,320	3,605	1,634	211,662
White...do....	871	5,257	9,342	996,334

a Yarns of all kinds.

b Fish and fishery products.

Articles.	1904	1913	1918	
	Quantity.	Quantity.	Quantity.	Value.
FOREIGN GOODS—continued.				
Woolen goods:				
Camlets, English ......pieces..	2,013	1,127	a 177	a $5,843
Cloth, broad, medium, habit, and Russian...yards..	12,565	7,448	(b)	(b)
Long ells......pieces..	2,642	1,514	106	2,656
Spanish stripes......yards..	22,461	23,098	304	496
NATIVE GOODS.				
Bean cake......tons..	148,501	203,921	128,853	5,764,121
Beans......do....	60,812	48,320	36,966	1,908,345
Cotton goods:				
Nankeens......pounds..	339,467	368,400	241,333	131,077
Sheetings......pieces..	....	14,980	12,760	62,622
Shirtings, gray......do....	....	1,170	300	1,646
Yarns......pounds..	....	6,667	1,900,133	609,076
Cotton, raw......tons..	773	819	415	232,154
Fibers:				
Pineapple......do....	....	275	(b)	(b)
Ramie......do....	....	4,193	2,574	573,226
Flour, Shanghai mills......do....	23	817	13,942	997,972
Groundnuts (peanuts)......do....	3,515	7,214	5,256	458,314
Oil, bean, groundnut, and wood......tons..	2,246	1,700	(c)	(c)
Medicines......value..	$86,428	$210,880	....	302,905
Rice......tons..	178,044	49,667	140,439	10,581,686
Samshu......do....	2,734	4,206	1,309	207,190
Silk piece goods......pounds..	86,000	132,533	52,000	356,174
Tea:				
Black......do....	2,130,533	1,116,000	1,024,533	312,635
Green......do....	....	2,000	7,733	1,116
Tobacco, leaf......tons..	1,314	1,464	1,926	294,116
Wheat......do....	10,979	1,496	853	28,166
Vermicelli......do....	1,815	2,128	1,666	253,077

a Camlets and buntings.
b Figures not available for 1918.
c Groundnut oil alone, 272 tons, valued at $65,753.

The principal import item, cotton goods, comes mainly from England through Hongkong, where stocks are kept. Thread is also of British manufacture. Normally, flour came largely from the United States, but high prices of the American article, due to war demands, have prevented for the time being the importation of this grade, Chinese flour from Shanghai having taken its place. Ginseng is shipped from Kirin, Chosen (Korea), and the United States. Metals find their way in from Hongkong. Kerosene is principally American, Sumatran, and Borneo, though recently a poor grade of Japanese illuminating oil has entered this market. Sugar is imported from Hongkong, where there are several refineries engaged in treating raw Java sugars.

Generally speaking, imports into Swatow comprise actual necessities for consumption by a population whose standard of living is not high and whose purchasing power is small. Naturally, the bulk consists of foodstuffs, material from which clothing can be made, matches, and illuminating oils. There is a limited demand for caps, sweaters, playing cards, window glass, dyestuffs, condensed milk, needles, haberdashery, woolen underwear, socks, canned goods, cigarettes, groceries, and miscellaneous articles. The absence of roads prevents the use of motor cars, motor or other cycles, or other vehicles. Absence of any manufacturing on a large scale explains the failure to import machinery and accessories. Miscellaneous goods, such as are carried in stock at Hongkong, are obtained from that port, so the direct importation of such articles from abroad can not be expected. There is a growing demand for detachable motors for small boats and large marine motors, operated by kerosene, for launches. Inasmuch as the number of foreign importing houses is small, American firms generally find it best to make connections with Hongkong business firms, which are in a position to supply the needs of the Swatow market.

SHIPPING FACILITIES.

No ocean-going steamships call at Swatow. Freight from Swatow destined for Europe or America is taken to Hongkong by coasting steamers and there transshipped. Freight from Europe or America destined for Swatow is transshipped at Hongkong upon coasting steamers bound for Swatow. Cargo from America can be transshipped at Shanghai and carried in coasting vessels to Swatow. The principal lines engaged in the coastwise traffic are the Indo-China Steam Navigation Co. (Ltd.), the Douglas Steamship Co. (Ltd.), the China Navigation Co. (Ltd.), and the Osaka Shosen Kaisha. Other lines provide irregular sailings to near-by Chinese coast ports and to Singapore, Bangkok, and Dutch East Indian ports. Forwarding and express companies in Hongkong are in a position to attend to shipments from that place to Swatow. There are no such companies at Swatow. Ships drawing as much as 15 feet can enter the harbor. Unloading is usually done into lighters. The harbor dues are 4 mace (about $0.30 United States currency) per registered ton, or 40 cubic feet, for vessels above 150 tons and 1 mace (about $0.07½) per registered ton for vessels of less than 150 tons.

FACILITIES FOR TRAVEL.

There is only one first-class hotel for foreigners at Swatow. The rates charged per day are $8 Mex. and the accommodations and food are good. The best time to visit Swatow is during the months of November, December, January, and February, when the climate is delightful. The other months are warm. Swatow is most easily and comfortably reached from Hongkong, though there are occasionally direct steamers from Shanghai.

TRADE ORGANIZATIONS.

The British Chamber of Commerce is the only foreign chamber of commerce in Swatow. There is a Chinese Chamber of Commerce and about 20 guilds.

AMERICAN INTERESTS.

American interests, aside from those of the Standard Oil Co. and the American Baptist Mission, are small. The American Baptist Mission maintains mission stations at Swatow, Chaochowfu, Ungkung, Chaoyang, Kityang, and Kaying, where there are American missionaries, and at other places where there are Chinese preachers. The Seventh Day Adventist Mission is the only other American mission represented. The other foreign missions are the English Presbyterian Mission, the Basel Mission (German), and the French Catholic Mission. All these missions do evangelistic, medical, and educational work among the Chinese in the Swatow district. There are 21 Americans engaged in this mission field.

The Standard Oil Co. is the only American firm at Swatow. The British have the largest interests there and the Germans (ordinarily) the next largest. There are two Americans in the Chinese Maritime Customs service, two in the Standard Oil Co.'s office, and one engaged in several minor business enterprises.

It is difficult to tell what effect the war in Europe has had on American trade with the Swatow district, because such trade is largely indirect and loses its identity while passing through Hongkong. The high price of American flour resulting from the war has prevented its sale in this district. American kerosene has gone up in price on account of the high freight rates, but the amount of the sales has not decreased. Naturally the importation of European manufactured goods has fallen off, and there are opportunities for American goods to replace such articles as metals, dyestuffs, wire nails, condensed milk, thread, etc.

As indicated above, the best way to approach this market is through Hongkong, to which place Chinese merchants turn when they are desirous of purchasing a bill of goods. Representation there fully covers the Swatow market.

TSINGTAU CONSULAR DISTRICT.

By Consul Willys R. Peck.

LOCATION AND AREA.

The Tsingtau consular district comprises the Leased Territory of Kiaochow, which lies between 35° 53′ 30″ and 36° 16′ 30″ north latitude and 120° 8′ 30″ and 120° 35′ 40″ east longitude, the latitude being thus the same as that of Nashville, Tenn. The Leased Territory occupies a peninsula on the east coast of the Province of Shantung, bounded on the east by the Yellow Sea and on the west by Kiaochow Bay.

The area of the Leased Territory of Kiaochow is approximately 400 square miles, about one-half being included in Kiaochow Bay.

POPULATION.

The German census of 1913 gave a total population for Tsingtau of 60,484, divided as follows: Americans and Europeans (mostly Germans), 2,069; German military, 2,401; Chinese, 55,672; Japanese, 316; Koreans and other Asiatics, 26.

The Japanese census at the beginning of 1919 gave the following figures: Americans and Europeans (excluding Germans), 175; Germans, 338; Chinese, 78,711; Japanese, 19,313; total, 98,537.

The greater part of the population of the Leased Territory is concentrated in the city of Tsingtau.

In December, 1917, the total Japanese population in Shantung Province numbered 25,104. In the spring of 1914 there were only a few hundred at most.

PHYSICAL FEATURES.

The Leased Territory is comparatively hilly, the principal mountains being the Laoshan Range, on the western boundary. Small torrential streams are met with here and there. Afforestation was begun by the German administration on an extensive scale.

CLIMATE.

The average temperature in summer is 70° to 75° F. and in winter 40° to 50°. Rains come in summer and early autumn. The temperature in summer rarely rises to 95° and in winter it seldom falls to zero. The rainfall in 1915 was 21 inches, and the average temperature throughout the year was 55° F.

POLITICAL ADMINISTRATION.

The Leased Territory was under German control from 1897 to 1914, on a 99 years' lease, under the terms of the Kiaochow Convention, dated March 6, 1898. The forts of Tsingtau surrendered to a combined Japanese and British force on November 7, 1914, and the Territory has since been under military occupation by the Japanese forces.

In October, 1917, a department of civil administration was inaugurated in the army of occupation. Under the new department the railway, with the wharf office and coal mines, the electricity department, the telephone and water services, the gendarmerie, acting in administrative and judicial police capacity, and all other departments in matters not interfering with military measures came directly under civilian control, subject to the commanding general. The troops are directly under the commanding general.

EDUCATION.

Educational facilities were supplied in great abundance and excellence by the German authorities. Before the outbreak of the war in 1914 the government maintained a modern grammar school for European children, and in addition to this there was a girls' school conducted by Franciscan nuns. Village elementary schools for Chinese were also provided, and the higher education of Chinese was provided for by the German-Chinese High School (of college grade), with buildings designed to accommodate 520 pupils and a teaching staff of 28 Germans and 9 Chinese. None of these schools except the convent girls' school is now in regular operation. There is no means of estimating the percentage of literacy. There is practically no illiteracy among the Europeans, Americans, and Japanese.

There are no native Chinese schools or hospitals of any importance.

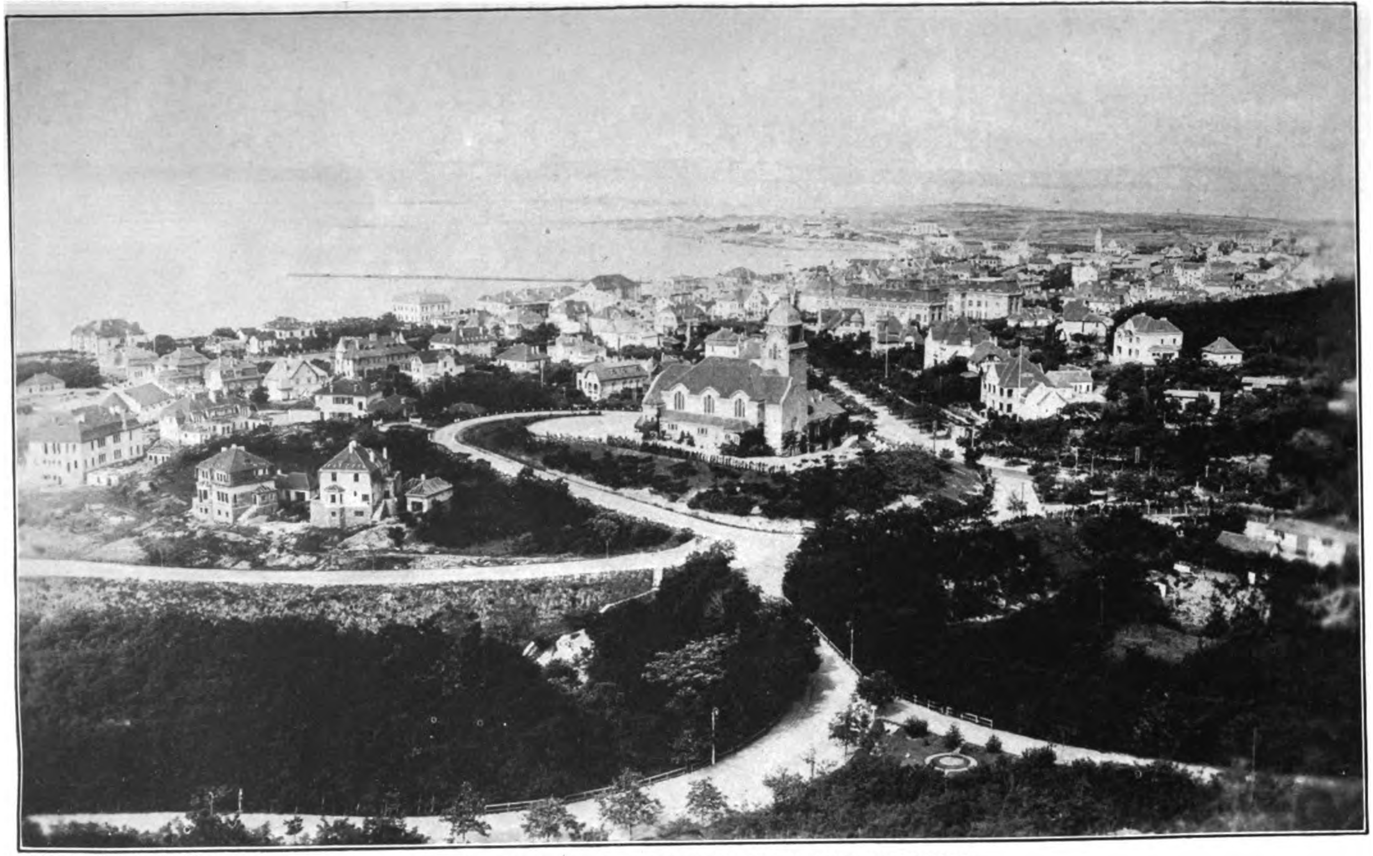
The American Presbyterian Mission conducts a high school for Chinese boys, with an enrollment of 43 pupils and 3 Chinese and 2 American teachers. The equipment is reported as meager, with nothing from America.

The Convent School maintained by the Franciscan Order enrolls 57 European scholars from kindergarten to high-school grades, employing 7 sisters as teachers and 3 pupil-teachers. There are no Chinese enrolled in the school now, though before August, 1914, there were 35 Chinese girls among the pupils.

The General Evangelical Protestant Missionary Society (German) previous to August, 1914, conducted a series of schools for Chinese scholars, enrolling about 300. While these schools are still carried on, they are greatly reduced in size, with about one-third of their former enrollment. Because of the closing of the government schools for German children, the society has opened such a school with 85 pupils, 2 teachers, and 6 assistant teachers. The equipment in all these schools is almost all produced locally.

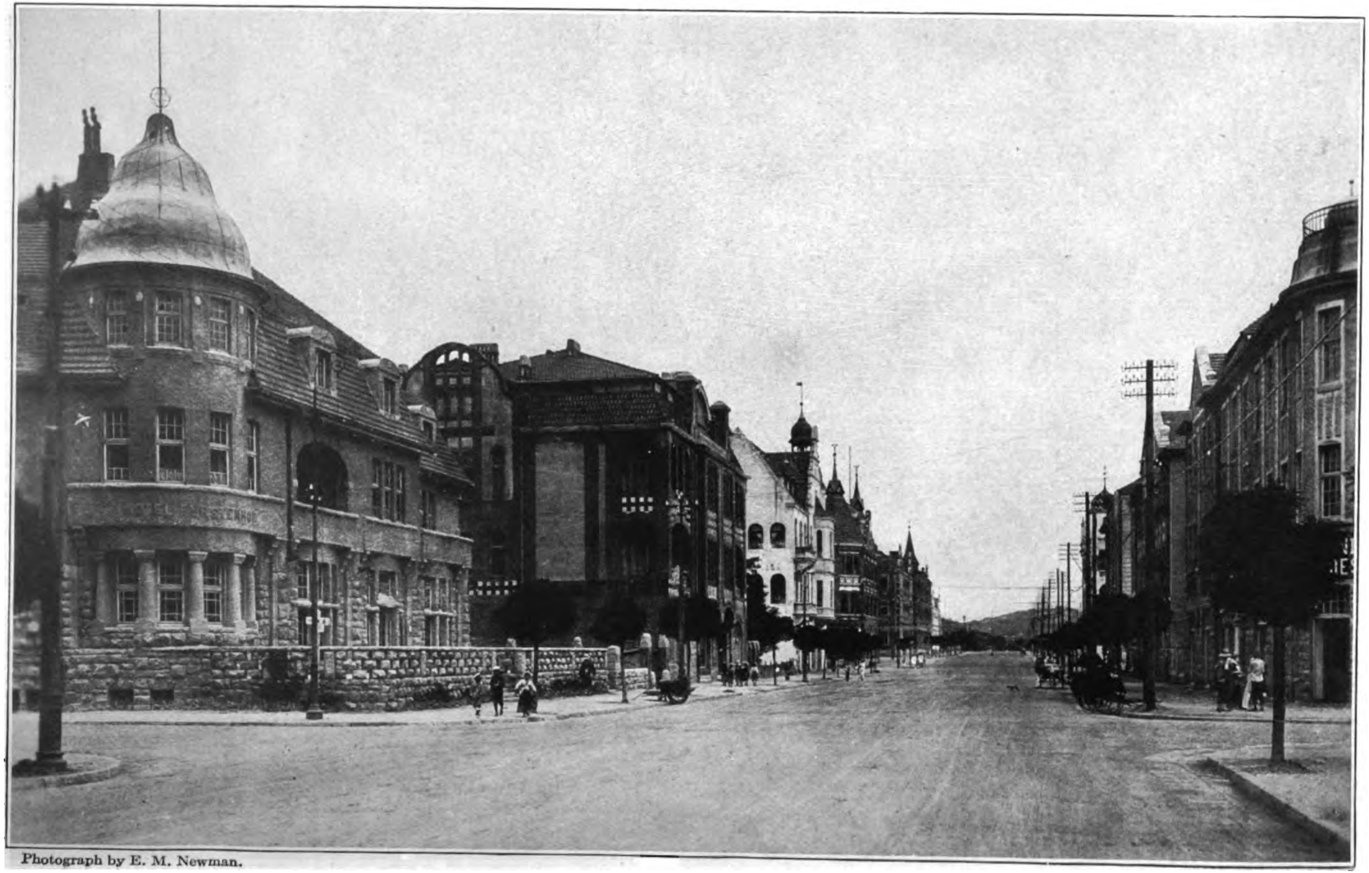
After their advent the Japanese authorities at once established schools for both Chinese and Japanese children. There are 3 Japanese grammar schools of 8 grades, and 1 girls' high school of 3 grades. There are 2,000 Japanese school children in Tsingtau. The schools for Chinese number 8 in Tsingtau and vicinity, with 359 scholars divided into 6 grades.

Hospitals in Tsingtau are maintained as follows: The Catholic Mission one, primarily for Chinese; the Faber Krankenhaus and Hospital, the former for Europeans, the latter for Chinese (a private institution); the Japanese Military Hospital (civilians also admitted). All these institutions maintain clinics as well. The equipments are either those remaining from the days of German control, in which case they are of German origin, or were introduced by the Japanese and are



Photograph by E. M. Newman.

FIG. 48.—CITY OF TSINGTAU, IN SHANTUNG PROVINCE.



Photograph by E. M. Newman.

FIG. 49.—STREET IN TSINGTAU.

for the most part of Japanese manufacture. Until political conditions are more settled there is little likelihood of an extension of this market, except to replace worn-out German articles. In 1918 work was begun on a new hospital, to be completed in June, 1919, at a cost of $40,280.

AGRICULTURE.

All the arable land in the Leased Territory is under cultivation, and the principal crops are such as the farmers themselves consume—for example, peanuts, cotton, corn, sweet potatoes, millet, wheat, fruit, etc. The seasons are the usual ones, with spring planting and autumn harvesting, except for wheat, much of which is sown in the autumn and harvested in the early spring. The farming methods and implements are of the most primitive sort, as must be the case when individual holdings are perhaps only 1 or 2 acres in extent. Draft animals are horses, mules, donkeys, and oxen. It is not unusual to see men dragging harrows and small plows. The only fertilizers used are manure of all sorts and soot-covered bricks from the inside of flues. The bricks in this case are sun dried. The agricultural products of the Leased Territory of Kiaochow do not figure in the exports through Tsingtau. The city is important chiefly, if not exclusively, as an entrepôt.

Cattle and other live stock are raised locally only for domestic purposes.

There are no mines in the Leased Territory of Kiaochow. For information concerning the mines operated in the 20-mile railway strip, as provided for in the Kiaochow convention, the reader is referred to the chapter on the Chefoo consular district.

COMMUNICATIONS: GENERAL INTRODUCTION.

Tsingtau is connected by steamship lines with the following oriental ports, which are, in turn, connected by direct lines with Europe and America: Shanghai, 335 miles from Tsingtau, 27 hours usually taken for trip; Hongkong, 1,165 miles, 90 hours; Kobe, 790 miles, 90 hours; Moji, 550 miles, 35 hours; Dairen, 256 miles, 20 hours.

The port is connected by the Shantung Railway, 256 miles long, with Tsinan, the capital of the Province of Shantung, situated also on the Tientsin-Pukow Railway, giving Tsingtau a rail connection of 476 miles to Tientsin, 667 miles to Nanking (Pukow), on the Yangtze, and 860 miles to Shanghai, the final stage being over the Shanghai-Nanking Railway.

KIAOCHOW BAY.

Half of the Leased Territory of Kiaochow is made up of Kiaochow Bay, 200 square miles in extent. This bay is navigable for small craft, but the only considerable city near its shores is Kiaochow, connected with Tsingtau by rail, 50 miles. There are no other waterways.

The Maritime Customs statistics show that, in 1917, 5,553 native junks entered Tsingtau, having a total cargo capacity of 105,383 tons, or an average of 19 tons per junk. Of these craft 206 were from Manchuria, 3,485 from other Shantung ports, 1,798 from Kiangsu

Province (Shanghai and other ports), 54 from Ningpo in Chekiang Province, and 10 from Foochow in Fukien Province. In the same year there were 756 steamers entered, of a total tonnage of 802,069. The freight rates of both steamers and junks constantly vary, and are, of course, different for different varieties of freight.

SHANTUNG RAILWAY.

The only railway line in the Leased Territory is the Shantung Railway. This line extends from Tsingtau to Tsinan, the capital of the Province. It is 256 miles long, with a branch line 27 miles long from Changtien to Poshan and 12 miles of other branch lines leading to coal mines and to the Yellow River.

This line was opened in June, 1904, and was constructed by the Shantung Eisenbahn Gesellschaft, which derived its right to do so from the German Government in a charter dated June 1, 1899. The right of the German Government to issue such a charter was secured from the Chinese Government by the Kiaochow Convention concluded March 6, 1898.

The railway is now operated under the Japanese department of civil administration. The arrangement is based upon the Japanese capture of the Leased Territory from Germany on November 7, 1914, in the course of which military operation the railway was occupied and retained by the Japanese military forces.

The year 1918 witnessed the opening of the Chinlingchen iron mine, and the building of the branch railway line to the mine necessitated the purchase of 5 miles of rails, 90 ore cars, 5 locomotives, etc. With the exception of the locomotives the supplies mentioned were furnished by the Wakamatsu Iron Works, of Japan, to which the railway is under contract to supply about 150,000 tons of ore annually. The total cost of this branch railway and equipment is about $1,000,000.

In the year 1916 three American locomotives and a large order of couplers were purchased from American firms, as well as certain supplies. Four American locomotives were purchased by the railway in 1917, 5 in 1918, and 4 in January, 1919. During 1918 the railway bought approximately $500,000 worth of American materials, including (besides the engines) boiler tubes, pumps, lathes, air-brake fittings, car-heating apparatus, couplers, roofing, and machine tools. Aside from these purchases the equipment of the railway is largely German. The present rolling stock includes 50 German locomotives, 16 American locomotives, 85 German passenger cars, and 1,179 German freight cars, as well as some manufactured in Japan and Manchuria.

The total freight moved on the Shantung Railway in 1917 was 705,254 tons, as against 586,835 tons in 1916. Receipts from all sources, including the sale of coal, were $3,890,193 in 1917 and $2,851,449 in 1916. Expenditures for all purposes, including the development of the new iron mine at Chinlingchen, amounted to $3,261,769 in 1917 and $2,008,293 in 1916.

The production of coal from the mines belonging to the railway for the year ended March 31, 1918, was slightly less than in the preceding year. Sales in local markets amounted to 213,030 tons, valued at 911,182 silver yen ($604,387 at exchange $0.6633), giving an average price of $2.78 per ton for all grades. Lump coal for household use sold at from $7.96 to $8.86 per ton. Exports to Shanghai, Hongkong, and Japan aggregated 129,141 tons, leaving a balance of 116,266 tons used on the railway, by the authorities, and in ways not specified. Bunker coal was supplied to vessels to the extent of 9,640 tons, at an average price of $3.50 per ton. Shipping agents reported that bunker coal was not available in the quantities required by vessels.

There are no additional railways or tramways under construction or in prospect in the Leased Territory.

ROADS.

Roads in the Leased Territory are generally of macadam, although in the city of Tsingtau itself a coating of asphalt is added to the most important thoroughfares. Throughout the Leased Territory the German authorities maintained the very highest grade of macadam roads, which was rendered easy by the proximity and abundance of road-building material.

In the rural districts clumsy native carts are used. Wheelbarrows are also common. The latter are often propelled partly by a sail. In the city freight is moved by man power. A long, low, two-wheeled truck is the ordinary conveyance. With this freight is conveyed a mile or more. A few horse-drawn wagons are in use, but the cheapest method of handling freight has been demonstrated to be by means of human labor.

Automobiles are numerous, in proportion to the European adult population.

POSTAL FACILITIES.

On October 10, 1918, an agreement was signed between Japan and China providing for an exchange of mails between the two systems at Tsingtau. A Chinese post office was reopened at Tsingtau for this purpose, and the Japanese military field post office was given the status of a regular Japanese post office. The public deals only with the Japanese post office, but postal facilities are now the same as at any other port in China, and international postal-order and parcel-post facilities are again available.

TELEGRAPHS.

As a result of the agreement mentioned above, the Chinese telegraph office in Tsingtau has resumed operations, the tariff being the same as elsewhere.

The other telegraph line in the Leased Territory is the Japanese military line. The local office will accept messages for any office in the world at Japanese rates. The rates for other Japanese offices—that is, in Japan, Chosen, Manchuria, etc.—are 40 gold sen (20 cents) for the first five words and 5 sen (2½ cents) per word thereafter. Rates to American cities (converted at $0.498 to the gold yen) are as follows: Tsingtau to New York, 2.66 gold yen ($1.32 United States currency); to Washington, 2.66 yen ($1.32); to San Francisco, 2.42 yen ($1.20); to Manila, 1.07 yen ($0.53).

There is a direct cable to Nagasaki, Japan, in which country there is a connection with trans-Pacific cables and with the wireless service to the Hawaiian Islands. Materials and supplies for this line are procured from Japan.

TELEPHONES.

The telephone apparatus in use is that installed by the German administration, except that alterations have been made in conformity with methods in use in Japan and that replaced parts are purchased in Japan. The central exchange is provided with a multiple-series, magnetic switchboard with backboard of the Delville system. There are more than 700 telephones in use, and the use of telephones is increasing. The rates are $25 Mex.[1] per quarter for wall telephones and $2 gold extra charge per quarter for desk telephones.

NEWSPAPERS.

There is only one newspaper published in this district, the Seitou Shimpo. It has a Japanese and a Chinese edition. The Japanese edition has a circulation of about 3,000 and an advertising rate of $0.65 Mex. ($0.32½ gold with exchange at $0.50) per column of about 12 words per day, with double charge for special columns. The Chinese edition has a circulation of about 1,100 and an advertising rate of $0.50 Mex. ($0.25) per column per day, with double rates for special columns. The estimated proportion of Japanese able to read newspapers is 85 per cent and of Chinese 50 per cent.

PUBLIC WORKS AND SANITATION.

There are no irrigation, conservancy, or reclamation projects in the Leased Territory.

As the city of Tsingtau is laid out precisely like a European city, the streets are wide, macadamized, and provided with sidewalks, sewers, and electric lighting. The gradients are nearly all easy, this having been accomplished only as the result of extensive cuttings and fillings. Asphalt is used as a surfacing material on the principal streets. Gutters and curbs are of stone and sidewalks of rolled and crushed stone.

The extent of macadamized streets in Tsingtau is 843,840 square miles, and in the whole Leased Territory 1,832,567 square miles. Taking ·10 meters as the average width, this is the equivalent of 52.4 miles of streets in the city and 113.8 for the whole Leased Territory.

The city of Tsingtau is lighted by the Tsingtau Electricity Department, a subdivision of the Japanese administration. The works were taken over from the German administration and include, after some recent additions, two dynamos of 170 kilowatt amperes, one of 410 and one of 1,000 capacity, manufactured by Siemens & Halske and Siemens-Schuckert. The current is alternating and the frequency 50, voltage 120. The total income of the electricity department for the fiscal year ended March 31, 1919, was 295,723 gold yen ($147,270).

The streets are lighted by 52 lamps of 1,200 candlepower and 2 lamps of 2,000 candlepower, while a few of 3,000 candlepower have been installed. There are approximately 27,750 electric lamps in use in private houses and 16,200 in official buildings. Current for lighting purposes is charged for as follows: Less than 50 kilowatts, $0.24 Mex.; less than 100 kilowatts, $0.21; less than 200 kilowatts, $0.18; less than 400 kilowatts, $0.15; more than 400 kilowatts, $0.12. There are minimum charges, however, based on the number of lamps used.

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[1] See footnote on p. 84.

Current for industrial purposes is charged for according to the following scale (unit horsepower per month): Over 1 horsepower, less than 5 horsepower, $7 Mex. per horsepower; over 6 horsepower, less than 10 horsepower, $6.50; over 11 horsepower, less than 20 horsepower, $7; over 21 horsepower, less than 50 horsepower, $5.50.

Fifty-six government installations, totaling 1,336 horsepower, and 51 private installations, totaling 738 horsepower, made use in 1918 of electric current for power purposes. In that year the use of electric power was extended to the pumping stations and pumps in the Litsun district, 10 miles from Tsingtau, and for future extensions a plant of 1,200-kilowatt capacity has been ordered from the Kawasaki dockyards and another plant of 2,000-kilowatt capacity from Sweden (the latter for delivery in January, 1920).

Officials and official installations pay no charges for electricity.

The water supply is derived from 13 wells at Litsun, a village about 8 miles from Tsingtau. There is a storage reservoir at Litsun and one on Moltkeberg (Wakazuru-yama) in Tsingtau. The consumption of water in the city is about 4,415 tons per day and the supply is ample. There are 20 pumping stations, all supplied with German machinery that is being replaced with Japanese machinery as replacements are necessary. Charges are $0.15 Mex. per cubic meter for amounts less than 100 cubic meters and $0.14 per cubic meter for amounts in excess of 100 cubic meters.

There are 79,742 meters (49½ miles) of street sewers laid, having their outlet in the outer harbor near Arcona Island. These sewers are partly earthenware, of the Mannheim type, and partly concrete of the Freiberg type, both manufactured in Tsingtau. About 1.2 miles of sewers have been laid during the Japanese occupation, a large portion being of Japanese origin.

The fire department is equipped with two German chemical fire engines, five reels of hose, eight draft animals, and a staff of about 20 men. There is no system of fire alarms.

The large influx of Japanese residents since the beginning of the war is resulting in the extension of sewers, water systems, and electric light connections.

The building of factories and residences, and municipal work, including the laying out of new streets and sewers, and harbor improvements were carried on with great energy during 1917 and 1918. Among the important public works were the enlargements in the Small Harbor (for junk traffic) and the creation of a magnificent site for a large Shinto temple.

In the 13 months ended October 31, 1918, 149 building permits were issued, including 15 for factories. The floor area of the new factories was reported as 399,456 square feet and the cost of erection $195,564. The other buildings totaled 610,920 square feet of floor area, and the cost of erection was $905,969. In addition to these private operations the army of occupation erected the following buildings for Japanese use: Girls' high school, cost $121,000; primary school, cost $80,000; 25 residences for petty officials, cost $91,200. The military headquarters was reported to have purchased German business and residental property throughout Tsingtau to a total value of $750,000, while private Japanese purchases of German property were said to have totaled $150,000. A site was set aside for a middle school to be erected in 1919. In 1918, likewise, the headquarters let contracts for the filling in of 29,281,824 cubic feet of tidal area near the Great Harbor for $342,000, the work to be completed by September 30, 1920. Contracts totaling $72,732 were let for the laying of water and sewer pipes in the new factory district near the Harbor, to be completed by April 30, 1919. At the opposite extremity of the town a contract involving $60,622 was let for street work in a region called Taishichen, on former German Government land, the work to be finished in July, 1919. The published budget for engineering works to be undertaken by the department of civil administration for the period from April to September, 1919, was announced to total $1,426,297, an increase of 68 per cent over the same period of 1918.

STATUS OF KIAOCHOW IN RELATION TO FOREIGNERS.

The whole of the Leased Territory of Kiaochow is open to foreign residence and trade.

According to the figures of the Japanese Military Administration, the population of Tsingtau on December 31, 1916[a], was as follows:

Nationality.	Males.	Females.	Total in Tsingtau.	Total in Leased Territory.
Japanese	6,914	5,962	12,876	14,586
Chinese	18,683	3,801	22,484	166,673
German	111	220	331	331
Austrian	....	2	2	2
British	19	27	46	50
Russian	15	23	38	38
American	23	23	46	48
Danish	6	4	10	10
Norwegian	3	1	4	4
Dutch	4	....	4	4
French	....	2	2	2
Greek	1	....	1	1
Swiss	....	1	1	1
Total	25,779	10,066	35,845	181,750

Aside from restrictions due to the war, there are no limitations in regard to foreign residence.

The United States maintains a consul in Tsingtau. The only other consular officers are the Russian and the British, who are vice consuls.

Foreign trade has been encouraged by the Japanese administration, and American trade is under no political disadvantages as compared with the trade of other nations. The customs tariff is that of other Chinese ports, without local modifications.

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[a] EDITOR'S NOTE.—This table, showing the situation two years after the surrender of Tsingtau by the Germans, is presented here because it contains a more detailed statement than is available elsewhere. The reader should, however, consult in this connection the figures given on p. 611. There appears to be a discrepancy in the figures for the Chinese in Tsingtau, affecting the total for the city.

FINANCE AND BANKING.

The currency in circulation includes (1) Japanese Government war notes, unit silver yen; (2) Yokohama Specie Bank notes, unit silver yen; (3) notes of other foreign banks at other ports (rare); (4) notes of Chinese Government banks (rare); (5) Japanese gold currency, both metal and paper.

The currency of Tsingtau is officially the silver yen, which is practically the equivalent of the Mexican dollar, though in exchange transactions, on account of the more limited area in which the silver yen is current, the Mexican dollar is quoted at a slight premium, as a rule.

In business transactions the Kiaochow tael is also used. Previous to August, 1914, the local Chinese Maritime Customs fixed the values of Kiaochow taels and Mexican dollars in terms of the Haikwan, or Customs, tael as follows: 100 Haikwan (Customs) taels equal 105 Kiaochow taels; 100 Haikwan (Customs) taels equal $152 Mex. At the present time 100 Haikwan taels equal 156.80 silver yen, in customs transactions. Any currency other than silver yen, when tendered in payment of customs charges, is received by the Customs banks at the day's commercial rate.

The difficulties encountered in foreign commercial transactions are those inseparable from a currency of fluctuating value and are guarded against, as elsewhere, to a certain extent by fixing exchange in advance.

Foreign banks base their interest charge on 7 per cent, although in negotiating commercial documents and in similar transactions exchange sometimes modifies this rate. Overdrafts and like accommodations are charged for at 7 per cent.

The Hongkong & Shanghai Banking Corporation and the Yokohama Specie Bank have branches in Tsingtau. These banks are open to any variety of business, but are engaged mainly in the discounting of drafts, transfers of money, exchange business, and all operations incident to commerce. The latter institution is the agent of the Military Administration at the present time. The International Banking Corporation (American) expects to open a branch at Tsingtau in October, 1919.

There are no native banks, properly so-called. There are a few institutions of small capital that do a limited exchange business with near-by interior points and one large Chinese bank conducted on foreign lines that makes a specialty of exchange business. The last-mentioned bank also allows its patrons loans without security at 6 per cent, but it does not consider this a regular branch of business.

MANUFACTURING AND OTHER INDUSTRIES.

By the Customs Agreement of 1905 the German Government secured exemption from duty for machinery of various kinds intended for use in the Leased Territory, but, in spite of this assistance, manufacturing industries, with two or three exceptions, did not in the past become important in Tsingtau.

Among the principal industries and manufactures are those mentioned below:

Abattoir.—There is a government-operated abattoir that is equipped with modern appliances. In 1918 it slaughtered 46,349 animals.

Brewery.—The Tsingtau Brewery was started in 1904. Its capacity is not exactly known, but the commissioner of customs in 1913 estimated it at 32,000 gallons. It ceased operations on a large scale in 1914, and in 1916 was purchased by Japanese interests at a reported price of $500,000 silver ($250,000 gold).

Brickkilns.—There are brickkilns that turn out bricks and tiles of foreign style for local use.

Refrigerating plant.—A refrigerating plant owned and operated by an American concern under the name of William Katz has a monthly capacity of about 1,000 tons of frozen meat.

Furnaces.—Several small furnaces are engaged in melting brass and copper coins into ingots.

Bone-meal fertilizer.—A small factory with a capital of about $5,000 was started in Tsingtau in 1916 for the grinding of bones into fertilizer.

Egg products.—Two factories under German management in 1913 manufactured and exported about 1,500,000 pounds of dried egg products.

Railway repair shops.—In Syfang, a suburb of Tsingtau, are located the repair shops of the Shantung Railway. It has been announced that these shops are prepared to undertake the construction of railway cars.

Shipyard.—Attached to the Great Harbor is a well-equipped shipyard where small launches have been built. It was formerly provided with a 16,000-ton floating drydock, but this has been removed. The other machinery, including a 150-ton crane, remains, but no work of an extensive character, aside from repairs, has been undertaken in the last few years.

Spinning mill.—A spinning mill with about 30,000 spindles has been started in Syfang, a suburb of Tsingtau. All the machinery was purchased in England.

Silk filature.—A silk filature has been started in the Tsingtau factory district.

Flour mill.—A flour mill with a capacity of 500 kokus (about 2,500 bushels) has been installed on the waterfront.

Salt works.—The manufacture of salt from sea water by artificial evaporation has been undertaken by a modern factory.

The last four industries listed are under Japanese management and supplied with Japanese capital. With the exception of the brewery all these factories derive their raw material from the country around Tsingtau. Japanese capitalists seem to be inaugurating a vigorous development of the manufacturing possibilities in Tsingtau, chiefly along the lines indicated above, raw materials for such enterprises being obtainable both cheaply and abundantly in the hinterland of the Leased Territory of Kiaochow. An additional development in the near future will probably be iron works, using ore from the mines at Chinlingchen, 180 miles from Tsingtau, on the Shantung Railway. Plants for the reduction of this ore had been projected by the Germans at Tsangkow, 11 miles from Tsingtau.

Since the Japanese occupation of the Leased Territory of Kiaochow, the following enterprises (among others), with an aggregate authorized capital of $3,000,000, not including capital of parent firms, have opened establishments in Tsingtau: Flour mill, oil mills, silk filature, spinning mill, ice factory, rice mill, tanneries, match factory, egg-products factories, chemical factory, soap factory, smelting works (chiefly for the reduction of currency), salt factory, and cannery. These factories are located conveniently with respect to shipping.

The United States should be able to furnish factory equipment for Tsingtau, even though, in some lines, circumstances make unprofitable the selling by Americans of the finished factory products. Equipment for egg-products factories and small flour mills are already viewed with interest at this rapidly developing port, and it is certain that with a little effort oil-milling machinery and small electric-light plants could be sold, at least in limited quantities. However, since the potential purchasers are almost invariably Chinese without a knowledge of English, catalogues and correspondence alone are of no effect as sales agencies. The members of a prosperous Chinese firm selling peanut oil to the United States through a Japanese concern informed the American consulate recently that they had, for two or three years, been considering the installation of oil-milling machinery, but continued the old hand processes because no one had ever attempted to explain to them the benefits of the new method, nor what and how to purchase. The Chinese community of Tsingtau would welcome the establishment of an American general import and export concern there, to push the sale of American goods of this character. But, to interest the Chinese at the beginning, the exporting of Chinese produce should be a part of the firm's business. Since the United States makes large purchases of such products at Tsingtau, this feature of the business, under efficient management, would support the firm during the cultivation of American import trade.

COMMERCE OF THE PORT: INTRODUCTORY SUMMARY.

The table below gives the total imports and exports, foreign and Chinese, through the Maritime Customs at Tsingtau during the years 1904, 1913, and 1918:

Imports and exports.	1904	1913	1918
Imports of foreign goods:			
From foreign countries and Hongkong	$2,399,652	$11,290,753	$20,249,726
From Chinese ports	3,705,592	8,030,414	7,540,042
Total foreign imports	6,105,244	19,321,167	27,789,768
Reexports of foreign goods:			
To foreign countries and Hongkong	....	26,804	143,931
To Chinese ports	....	162,586	1,169,941
Total foreign reexports	....	189,390	1,311,872
Net total foreign imports	6,105,244	19,131,777	26,477,896
Imports of Chinese products	2,715,471	6,051,061	14,317,679
Reexports of Chinese products:			
To foreign countries and Hongkong	....	672,467	116,436
To Chinese ports	15,628	75,521	221,181
Total Chinese reexports	15,628	744,988	337,617
Net total Chinese imports	2,699,843	5,306,073	13,980,062
Exports of Chinese products of local origin:			
To foreign countries and Hongkong	590,021	8,788,403	18,265,702
To Chinese ports	3,771,831	9,967,029	16,969,004
Total exports of local origin	4,361,852	18,755,432	35,234,706
Gross value of the trade of the port	13,182,567	44,127,660	77,342,155
Net value of the trade of the port	13,166,939	43,193,282	75,692,664

In 1913 Japan had 36.6 per cent of the direct foreign trade of Tsingtau, while in 1918 it had 83 per cent. In the latter year the United States had only 3 per cent.

EXPORT TRADE.

It is believed that the following table will show at a glance the relation of Tsingtau's export trade to that of the whole of China in recent years and also its development. The term "export" includes shipments to both foreign and Chinese ports, and the years 1914 and 1915 are omitted because the statistics for those years are incomplete. In the second column amounts are given in Haikwan taels, as variations in exchange often obscure the issue when conversions are made:

Years.	Value of exports.	Rank of Tsingtau among Chinese ports.	Tsingtau's percentage of total Chinese exports.
	Haikwan taels.		
1906	8,470,914	Fourteenth	2.2
1907	8,478,345	Fifteenth	2.1
1908	12,033,307	Twelfth	2.7
1909	14,736,629	do	2.8
1910	17,171,415	Seventh	3.0
1911	19,853,669	Sixth	3.6
1912	24,999,360	do	4.5
1913	25,692,373	do	4.4
1916	22,934,187	Seventh	3.2
1917	25,711,770	Sixth	3.7
1918	29,534,540	do	3.9

The following table shows the principal exports from Tsingtau to foreign countries and Chinese ports for the years 1913, 1916, and 1918:

Articles.		1913	1916	1918
Alum, white	pounds	52,668	228,627	266
Bean cake	tons	7,155	2,077	5,063
Beans, yellow	pounds	93,898	81,221	1,494,388
Bones, animal	tons	1,363	1,806	4,511
Breadstuffs: Wheat	pounds	52,402	754,110	48,979,206
Bristles	do	488,775	92,568	688,940
Caps, felt	number	57,391	1,274	2,452
Cattle	do	28,413	983	544
Coal	tons	161,523	68,583	172,311
Coke	do	627	415	57,836
Copper ingots	pounds		75,257,252	6,155,639
Cotton, raw	do	6,420,575	3,279,381	4,180,190
Cuttlefish	do	164,521	150,822	77,273
Dates:				
Black	do	11,635,372	382,242	238,070
Red	do		555,142	952,679
Eggs:				
Albumen	do	213,066		136,724
Yolk	do	1,198,197		496,381
Whole, prepared	do	37,240		23,940
Fresh	number	27,056,000	4,004,140	3,231,770
Fibers: Hemp	pounds	615,125	7,049	5,586
Fish, dried and salt	do	251,769	519,764	137,655
Glassware	do	894,425	664,069	641,326
Hats, straw	number	187,708	54,382	7,182
Hides, cow	pounds	5,167,981	5,290,075	5,958,001
Hair, human, and manufactures of:				
Hair	value	$12,502		a 11,837
Nets	do	$408	$36,824	$52,520
Lead	pounds		11,571	
Macaroni and vermicelli	do	329,042	35,245	78,337

a Pounds

Articles.	1913	1916	1918
Meats, fresh...pounds	11,571,931	4,432,757	13,745,683
Medicines...value	$268,399	$77,793	$48,042
Oils:			
Bean...pounds	3,548,307	12,094,355	22,107,659
Castor...do	....	1,102,437	1,181,838
Peanut...do	19,567,226	31,193,953	45,621,527
Pears, fresh...do	1,955,898	87,780	488,376
Peanuts:			
In shell...do	15,274,917	632,548	18,354
Kernels...do	121,114,721	70,336,385	65,799,888
Salt...do	46,748,835	103,400,850	440,704,810
Seeds:			
Apricot...do	1,007,342	64,771	90,573
Melon...do	626,829	883,652	458,451
Sesame...do	112,784	290,472	194,579
Silk and silk goods:			
Silk, raw, white—			
Not re-reeled, not steam filature...do	37,373	29,526	53,599
Reeled from dupions...do	3,059	1,729	665
Steam filature...do	....	3,990	7,182
Silk, raw, yellow—			
Not re-reeled, not steam filature...do	584,136	168,132	290,206
Steam filature...do	27,132	76,475	124,355
Re-reeled...do	....	23,275	23,541
Cocoons...do	....	40,964	36,974
Cocoons, refuse...do	1,142,736	141,379	5,187
Waste...do	....	771,001	1,659,175
Pongees, Shantung...do	916,902	622,706	....
Piece goods...do	16,093	2,394	8,246
Skins: Goat, untanned...number	131,826	126,150	134,555
Straw braid...pounds	11,609,304	2,020,802	1,474,571
Tallow, animal...do	4,237,114	3,561,474	6,881,154
Timber, softwood...square feet	....	1,150,975	1,619,344
Tobacco, leaf...pounds	1,463	1,240,624	18,271,939
Vegetables, fresh...do	4,872,056	2,233,602	712,880
Walnuts...do	1,908,816	395,808	175,161
Wool, sheep's...do	412,167	771,267	636,006
Zinc:			
Spelter...do	2,394	125,818	....
Old...do	58,121	524,419	738,815

The correspondence of the Tsingtau consulate shows that many American firms are interested in exports from Tsingtau of goods of local origin, and the following table (covering 1918) is given as of probable interest, only important articles being listed:

Articles.	To Japan.	To other countries.	To Chinese ports.
	Pounds.	*Pounds.*	*Pounds.*
Bristles	23,142	....	665,798
Cotton, raw	2,556,526	70,357	1,553,307
Hides, cow	5,516,042	86,051	355,908
Oil:			
Bean	3,007,662	....	19,099,997
Peanut	28,647,934	1,510,082	15,463,511
Peanut kernels	37,170,175	1,141,672	27,488,041
Straw braid	1,206,975	69,160	198,436
Wool, sheep's	294,196	....	341,810

The following modifications of direct trade with foreign countries took place during the period of the war: Direct exports to Germany, France, Belgium, the Netherlands, and Italy entirely ceased, although before the war their combined quota of direct exports was 26 per cent; in 1917 only 35 per cent of exports went through Chinese ports, instead of 53 per cent, as in 1913; Japan's share of the trade increased from 8 to 59 per cent in the same period; and that of the Russian Pacific ports decreased from 9 to 1 per cent. There had been no very striking changes in direct exports to the United States up to the end of 1917, but in 1918 (as shown on the next page) the value of such exports represented an increase of $2,732,976 over the preceding year.

The most active seasons for collecting and shipping the principal exports may be indicated as follows: Beef, business throughout the year; hides, October to April; bean oil, December to June; peanut oil, December to June; peanuts, November to April; silk pongees, October to February; silk, raw, August to November; straw braid, October to February.

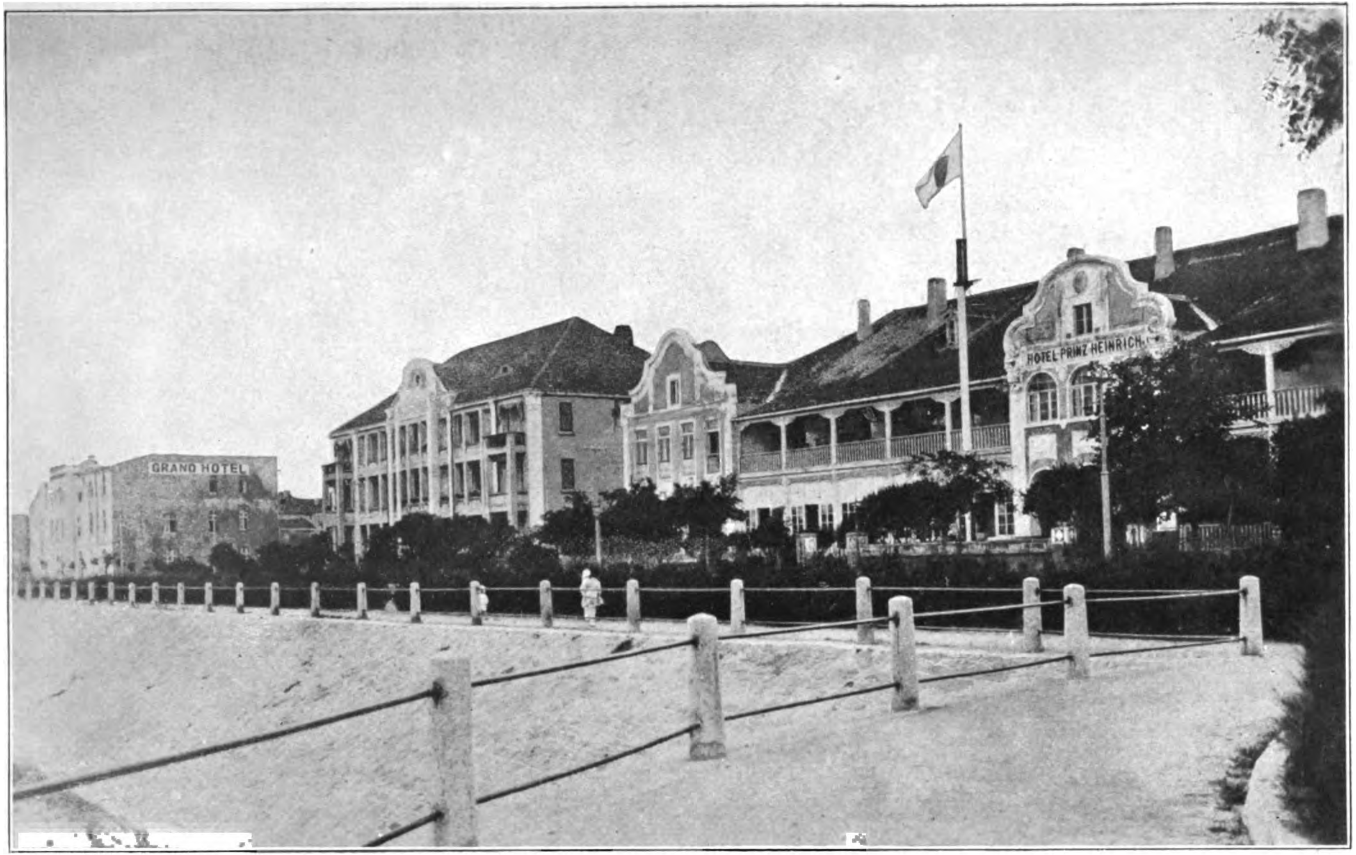
The growth of exports from Tsingtau has been fairly consistent in the past decade. Because of the fact that Chinese produce for export is generally bought locally through compradors from dealers who assemble at the port, a factor of the first importance in the export trade is the presence of a number of exporting firms dealing in the same commodities, thus providing a market to attract the Chinese dealers.

During the years of the war the direct steamship connection with Europe was eliminated and at times there has been a shortage of local, as well as ocean, freight space which has hampered exports. On the whole, however, Tsingtau is very well equipped for this business, having a railway to bring the goods from the interior and magnificent docks for the accommodation of shipping.

As has been said, export business is done through compradors and the terms are arranged at the outset. Usually Chinese sellers pay the comprador 2 per cent on straw braid and 1 per cent on other goods. Bargain money may or may not be paid on conclusion of purchase and full payment on shipment of goods.

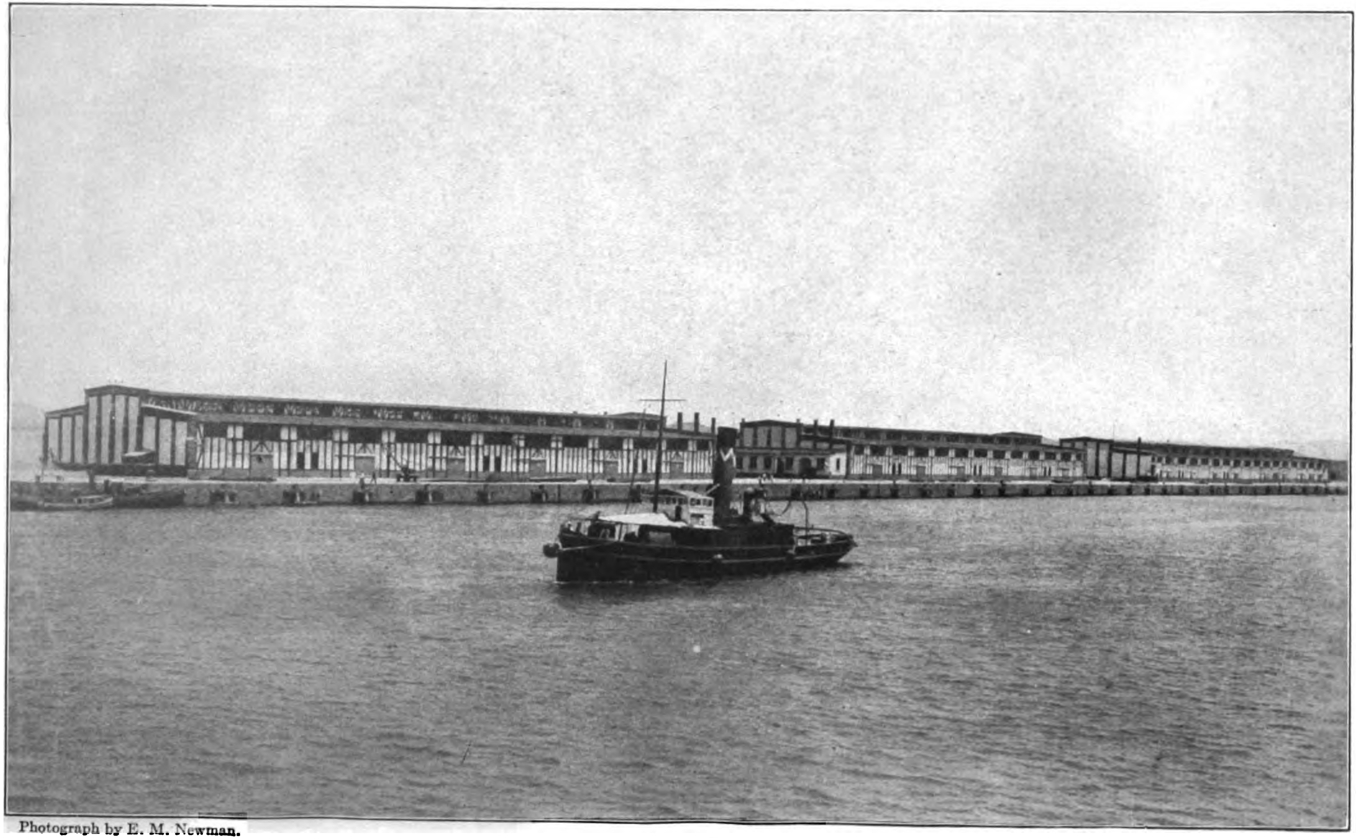
The following table shows the articles declared at the Tsingtau consulate for exportation to the United States during the years 1913, 1917, and 1918:

Articles.	1913		1917		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
TO UNITED STATES.						
Brass ingots..........pounds..			224,000	$31,500		
Bristles..................do....	125,063	$99,146	105,685	70,172	83,121	$73,732
Castor oil.............gallons..			4,000	4,032		
Eggs: Dried, yolk, etc. pounds..	79,293	32,846			1,450	1,353
Hides...............pieces...	12,780	51,673				
Hides...............pounds..	298,735					
Household effects............		1,270				
Meat, preserved.......pounds..			6,180	1,258		16,546
Peanuts:						
Unshelled...........do....	6,720	214				
Kernels.............do....	384,800	15,570	856,000	60,076	718,800	55,772
Peanut oil...........gallons..			769,400	673,981	2,900,444	2,791,729
Rugs...........square yards..	34	121				
Silk, pongee.........pieces...	3,541	14,202				
Silk, pongee.........pounds..	7,672					
Soya bean oil............do....	121,242	5,849	4,818,656	517,277	7,759,314	962,591
Straw braid..................		756,121		31,398		227,572
Straw hats...................						3,754
Tallow, animal.......pounds..			75,333	11,414		
Walnuts..................do....	76,500	3,613				
Wool.....................do....	93,076	12,351				
Zoological specimens...........		150				
All other articles.............						1,035
Total.......................		996,126		1,401,108		4,134,084
TO PHILIPPINE ISLANDS.						
Coke.....................tons..			155	6,355	370	6,105
Meat:						
Preserved........pounds..				1,052		
Fresh..............do....			5,026,284	477,851	8,599,050	845,652
Total.......................				485,258		851,757
Grand total.................		996,126		1,886,366		4,985,841



Photograph by E. M. Newman.

FIG. 50.—THE BUND AT TSINGTAU.



Photograph by E. M. Newman.

FIG. 51.—DOCKS AT TSINGTAU.

IMPORT TRADE.

Tsingtau's foreign imports during the last decade have been roughly one-quarter cotton piece goods, one-quarter cotton yarn, one-quarter miscellaneous articles each less in value than 1 per cent of the total foreign imports, and the remaining quarter made up of 8 or 10 staples (among which kerosene is easily first, with about 5 per cent of the total, and matches second). Cigarettes in 1916 climbed suddenly to about 7 per cent of the total foreign imports. There have been no other notable or sudden changes in the receptivity of the people to foreign imports, but only a slow and normal advance.

The following table shows the net total foreign imports at Tsingtau (direct and via Chinese ports) for the years from 1906 to 1918 (except 1914 and 1915):

Years.	Value.	Rank of Tsingtau among Chinese ports.	Tsingtau's percentage of total foreign imports of China.
	Haikwan taels.		
1906	16,940,667	Seventh	4.9
1907	16,416,053	Eighth	3.8
1908	15,718,278	.....do	3.9
1909	19,422,133	Sixth	4.6
1910	20,653,319	.....do	4.4
1911	20,894,830	Eighth	4.4
1912	23,955,281	Sixth	5.0
1913	26,207,915	Seventh	4.5
1916	18,896,318	.....do	3.2
1917	22,538,383	Eighth	4.1
1918	22,194,381	Seventh	4.0

Previous to the war both the Hamburg-American Line and the North German Lloyd had direct sailings to European ports, but since the war, with occasional exceptions, all European and American imports have required transshipments at Japanese or Chinese ports, generally Kobe or Shanghai.

The liberal financial accommodation allowed by German banks to their nationals is well known, and the long credit they were thus able to give Chinese purchasers was an advantage. At the present time most of the import business is in Japanese hands, and they are not, as a rule, extending long credits. In fact, Chinese merchants state that in many lines cash payment is required. High prices for exports (in spite of cheap gold) and the appreciation of silver help to overcome Chinese reluctance or inability to buy under these conditions.

Distribution of imports to the interior is by the Shantung Railway and thence, generally, by Chinese carts. For information on this topic the reader may be referred to the chapter on the Chefoo consular district.

The table following shows the principal imports of foreign goods into Tsingtau for the years 1913, 1916, and 1918.

Articles.	1913	1916	1918
Asbestos ... pounds	....	....	14,231
Bags, gunny ... pieces	1,068,804	1,003,235	1,492,995
Beer and porter ... value	$34,203	$79,492	$12,275
Borax ... pounds	....	....	13,566
Brass and yellow metal sheets ... do	98,420	6,118	....
Butter ... do	96,159	13,832	43,832
Buttons, brass ... gross	118,209	33,955	12,296
Candles ... pounds	266,300	175,294	382,909
Chinaware ... value	$46,246	$25,659	$37,503
Cigarettes ... do	$307,332	$1,079,152	$1,103,204
Clocks ... pieces	....	....	6,316
Coal ... tons	....	14,338	7,869
Copper sheets ... pounds	183,274	22,610	....
Cotton manufactures:			
Sheetings, gray, plain—			
American ... pieces	82,227	15,880	2,360
English ... do	7,830	3,283	4,910
Japanese ... do	243,542	239,100	241,809
Shirtings, gray, plain ... do	382,304	117,622	88,687
Shirtings, white, plain—			
Japanese ... do	....	5,608	38,933
Other ... do	95,204	51,735	26,087
Drills—			
American ... do	22,814	2,472	....
English ... do	4,323	269	2,730
Japanese ... do	4,710	11,063	13,282
Jeans—			
American ... do	1,780	....	1,200
English ... do	181,065	11,768	9,391
Japanese ... do	....	107,076	13,282
T cloths—			
English ... do	392,992	87,826	103,213
Japanese ... do	25,813	181,620	404,893
Cambrics, lawns, and muslins, white, dyed, or printed, ... pieces	26,461	8,656	15,565
Chintzes and plain prints ... do	136,488	29,195	70,827
Printed drills, furniture coverings, and twills ... do	13,316	300	2,592
Printed sateens ... do	15,596	2,970	2,179
Printed T cloths ... do	21,875	352	1,375
Italians and lastings—			
Fast black ... do	89,697	64,581	39,183
Plain, colored ... do	187,982	86,902	141,062
Figured ... do	175,085	56,009	32,179
Dyed shirtings and sheetings, plain ... do	5,379	3,621	3,631
Turkey red cambrics and shirtings ... do	87,289	86,126	76,229
Spanish stripes ... do	12,636	648	865
Flannelettes ... do	14,354	14,805	14,752
Colored woven cottons ... yards	125,457	....	....
Velvets and velveteens ... do	51,912	14,050	18,249
Blankets ... pieces	31,414	26,742	....
Handkerchiefs ... dozens	17,066	29,510	23,289
Towels ... do	126,968	127,949	29,877
Yarn—			
Indian ... pounds	9,118,347	3,777,732	1,438,661
English ... do	399	....	....
Japanese ... do	27,920,956	29,363,607	13,056,610
Cotton thread, on spools ... gross	27,327	16,462	20,458
Dyes:			
Aniline ... value	$223,506	....	$18,987
Indigo—			
Artificial ... pounds	4,678,674	24,206	45,220
Natural, liquid ... do	....	123,291	4,655
Lead, white and yellow ... do	382,907	162,526	222,908
Logwood extract ... do	131,271	....	6,650
Electrical materials ... value	$29,058	$39,273	$52,997
Enameled-ware basins ... dozen	11,755	6,449	7,414
Flour ... barrels	52,106	873	265
Fish, dried, fresh, salt ... pounds	2,292,133	1,181,600	1,757,329
Glass, window ... boxes	16,664	1,664	4,268
Glassware ... value	$13,260	$9,149	$13,662
Gypsum ... pounds	....	7,847	92,701
Iron and mild steel:			
New—			
Bars ... do	2,384,158	....	351,785
Nail-rod ... do	493,962	2,793	....
Hoops ... do	400,729	....	186,200
Nails, wire ... do	1,288,770	449,274	578,982
Sheets and plates ... do	917,567	292,334	305,368
Wire ... do	480,263	....	159,733
Old ... do	18,646,467	6,686,043	3,180,695
Iron, unmanufactured ... do	513,912	15,029	39,634
Iron, galvanized, sheets ... do	901,740	173,831	184,737
Iron and steel manufactures ... do	3,705,247	163,590	47,527

Articles.	1913	1916	1918
Lead:			
In pigs ..... pounds..	549,024	117,040	66,834
Manufactures of ..... do....	3,325	4,256	1,197
Kerosene, total ..... gallons..	9,364,065	6,924,484	6,106,002
American ..... do....	5,111,727	2,478,617	2,359,930
Japanese ..... do....	....	1,408,800	583,866
Russian ..... do....	1,754,962	....	....
Persian ..... do....	....	1,446,503	....
Sumatra ..... do....	2,497,376	1,590,564	3,162,206
Lamps and lampware ..... value..	$44,804	$13,350	20,511
Matches, Japanese ..... gross..	6,610,566	3,716,069	2,627,470
Mats ..... number..	519,890	109,135	285,632
Metal, white or German silver, sheets and wire ..... pounds..	....	7,847	4,738
Milk, condensed, in tins ..... dozen..	14,743	5,505	5,110
Needles ..... thousands..	534,605	43,675	209,075
Nickel ..... pounds..	17,423	931	3,591
Opium ..... do....	2,181	15,578	7,315
Paper ..... do....	6,491,390	2,442,412	1,626,324
Pepper, black ..... do....	540,778	208,544	457,520
Quicksilver ..... do....	4,788	931	532
Saké ..... value..	....	$89,268	$96,729
Seaweed ..... pounds..	4,884,558	3,869,236	5,399,135
Silk piece goods, mixtures ..... do....	87,093	31,454	37,025
Soap ..... value..	$49,007	$44,202	$96,671
Soy ..... pounds..	....	771,001	406,464
Soda ..... do....	5,083,925	....	813,295
Steel ..... do....	999,495	....	65,303
Stores, household ..... value..	$89,226	$53,457	80,466
Sugar:			
Brown ..... pounds..	21,533,897	13,994,792	25,698,127
White ..... do....	5,249,510	3,093,048	10,780,714
Refined ..... do....	11,359,530	6,509,419	17,932,789
Candy (crystals) ..... do....	2,687,797	999,894	3,485,398
Timber:			
Hardwood ..... cubic feet..	23,983	8,862	21,400
Softwood ..... square feet..	4,659,991	1,431,968	1,304,199
Tin ..... pounds..	20,083	15,162	15,827
Tin plates ..... do....	3,072,965	3,413,711	2,540,034
Wines and spirits ..... value..	$74,823	$6,859	$138,963
Wool and cotton unions ..... yards..	83,878	27,214	4,908
Woolen goods:			
Cloth, broad, medium, and habit ..... do....	2,060	160	205
Spanish stripes ..... do....	2,656	993	177
Other ..... pieces..	2,296	280	61
Woolen yarn ..... pounds..	35,644	12,768	16,359
Zinc, and manufactures ..... do....	190,988	2,926	31,787

With the exception of kerosene, none of the above imports offers any great opportunities for American manufacturers and exporters. Machinery, however, such as weaving, spinning, and milling, undoubtedly holds promise. In this line more than in most it is imperative to be represented by active and capable local concerns, though in the matter of railway equipment American interests have been satisfactorily served by occasional visits of salesmen.

Japanese merchants have had, naturally, a great advantage in Tsingtau, but this is discounted somewhat by the universal practice of Chinese buyers of sending orders to Chinese brokers in Shanghai.

SHIPPING FACILITIES FOR TRADE WITH UNITED STATES.

Among the steamship lines operating between Tsingtau and other Asiatic ports are the following Japanese companies: Nippon Yusen Kaisha, Osaka Shosen Kaisha, Harada Steamship Co., South Manchuria Railway Co., Dairen Steamship Co., Awa Steamship Co., and Chosen Yusen Kaisha. These lines have steamers connecting the Leased Territory with ports such as Osaka, Kobe, Moji, Ujina, Dairen, Chemulpo, Tientsin, Shanghai, and Hongkong.

In addition to the above Japanese lines, the British firms Jardine, Matheson & Co. (Ltd.), and Butterfield & Swire (Ltd.) have occasional steamers calling at the port. Chartered vessels, also, occasionally call.

Through the steamship companies it is possible to get through bills of lading to and from Tsingtau and foreign ports, but there are no other forwarding or express companies having extensive connections.

The magnificent harbor gives berthing accommodations for more than 20 vessels 300 feet in length, and the minimum depth of water beside the wharves is 27 feet, while usual low water gives 33 feet. The harbor is ice-free, and railway spurs run onto the wharves. Wharves and harbor are in a bonded area. Machinery, tools, etc., used for manufacturing, industrial, and agricultural purposes within the Leased Territory are duty free. Tonnage dues are 1 cent ($0.01) silver per ton per day, and there are no pilotage fees.

In connection with this subject, the reader may be referred, for additional information, to the section on "Communications" (p. 613).

FACILITIES FOR TRAVEL.

The Grand Hotel, Grand Hotel Annex, and Strand Hotel (last in summer only) furnish excellent accommodations and cuisine. The rates are, at present exchange ($0.70), about $5 gold per day. One large room with bath for one person is $45 silver per week; two persons, $80 silver. Railway and steamer accommodations at Tsingtau are excellent, including a night train to Tsinan, the provincial capital, and junction with the north-and-south Tientsin-Pukow Railway. Tsingtau is a widely patronized summer resort, and the climate is equable and agreeable at all times.

TRADE ORGANIZATIONS IN DISTRICT.

There are two chambers of commerce in Tsingtau, Chinese and Japanese, the latter styling itself the Tsingtau Business Association. There are also Chinese guilds, such as the butchers' guild, etc., but these do not have a direct bearing on foreign commerce.

AMERICAN INTERESTS.

There has never been an American firm in Tsingtau actively engaged in either importing or exporting general merchandise.

In addition to the German missionary societies represented in the Leased Territory and the Franciscan Convent, with one or two Catholic priests, there are no Western mission societies in the Territory with the exception of the American Presbyterian Mission. This mission conducts a boys' (Chinese) school (see under "Education"), and generally has four resident missionaries.

At the present time there is an American-owned refrigerating plant, chiefly engaged in exporting fresh beef to Manila and Vladivostok, and the same firm has a meat-packing plant.

A large American oil company has an extensive installation, tanks, etc. The market is shared with a British concern provided with similar equipment, and with Japanese concerns marketing American and Japanese products.

GENERAL TRADE SUGGESTIONS.

Suggestions with regard to the extension of American trade in the Tsingtau district may be epitomized in the statement that what is needed is American representation. The absence of American firms has been noted. At the present time this defect is in prospect of being remedied, and the consulate may be able in the future to assist American exporters by suggesting a resident American firm capable of handling their interests. In extending sales it is necessary, here as well as in the United States, that energetic measures be used, and it has not always been found that foreign firms are the best agencies to this end.

NOTE CONCERNING MAPS.

Facing this page are two maps of China—the first a large, detailed map and the second a smaller one designed simply to show the existing railways of the country. Persons interested primarily in questions of railway transportation will find it more convenient to consult the smaller map, disregarding the railway lines indicated on the other, which do not correspond in all respects with actual conditions at the present time.

DEPARTMENT OF COMMERCE
BUREAU OF FOREIGN AND DOMESTIC COMMERCE
PHILIP B. KENNEDY, Chief

MISCELLANEOUS SERIES—No. 84

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LETTER OF SUBMITTAL.

DEPARTMENT OF COMMERCE,
BUREAU OF FOREIGN AND DOMESTIC COMMERCE,
Washington, August 15, 1919.

SIR: There is submitted herewith the second volume of the Commercial Handbook of China, prepared under the supervision of Commercial Attaché Julean Arnold. Volume 1 consists of articles covering in detail the commercial and economic aspects of each of the American consular districts in China, together with introductory chapters describing the country as a whole and presenting complete statistics of its trade. The present volume contains discussions of a more general character, relating to Chinese customs and social organization, industrial development, commercial practices and regulations, conditions at the ports, advantageous methods of entering the market, problems that require solution, and numerous other matters having a direct bearing on the expansion of American trade with China.

Commercial Attaché Arnold and the Bureau of Foreign and Domestic Commerce desire to express their warm appreciation of the assistance rendered in the compilation of this monograph by the mercantile communities in China and particularly by those persons who prepared special chapters for Volume 2. Among those whose studies and conclusions are represented in this book—in addition to Mr. Arnold—are Consul Raymond P. Tenney; Consul Mahlon H. Perkins; Consul Albert W. Pontius; Vice Consul Walter A. Adams; Judge Charles Sumner Lobingier, of the United States Court for China; Mr. John V. A. MacMurray, chargé d'affaires, American Legation, Peking; Trade Commissioner Frank Rhea; Trade Commissioner Paul Page Whitham; G. Passeri, formerly financial adviser to the Bank of China; Trade Commissioner A. W. Ferrin; Mr. John H. Reisner, dean of the College of Agriculture and Forestry, University of Nanking; Mr. J. B. Powell, editor of Millard's Review, Shanghai; Dr. W. B. Pettus, director of the North China Union Language School, Peking; Dr. Fong F. Sec, of Shanghai; Dr. Y. T. Tsur, formerly president of Tsinghua College, Peking; Rev. Frank Rawlinson, editor of the Chinese Recorder; and the American Chamber of Commerce of China. The American Asiatic Association very courteously furnished the illustrations that appear in this volume.

The Bureau is grateful for the valuable assistance of Dr. A. P. Winston and Consul Nelson T. Johnson, of the Department of State, who have read all the material in proof and have made important suggestions.

Both volumes of the handbook have been edited by F. Lamont Peirce, of the Bureau's staff.

Respectfully,

PHILIP B. KENNEDY,
Chief of Bureau.

TO HON. WILLIAM C. REDFIELD,
Secretary of Commerce.

COMMERCIAL HANDBOOK OF CHINA: VOLUME 2.

DIGEST OF CHINESE HISTORY.

By Commercial Attaché Julean Arnold.

INTRODUCTION.

The ever-increasing interest manifested by Americans in their relations with the Far East makes it necessary that they should know something of the historical background of the world's most populous nation, China.

China is not the name given to the country by the Chinese, who call it "Chung Kwo," or Middle Kingdom. Probably once in its history, about 200 years before the beginning of the Christian era, it was known as the Kingdom of Ch'in, and at that time the name was carried to Indian and western lands by traders.

The origin of the Chinese people is also a matter of dispute. The fertile lands of the Wei Basin in southern Shensi Province, in west China, are spoken of as the cradle of China, indicating that the Chinese either came from central Asia or that the race originated here.

EARLIEST PERIOD.

The legendary history of China is believed by the Chinese to extend back to the beginnings of all things. The historical period takes its inception from B. C. 2852, the supposed date of the birth of the first of the Emperors as credited in Chinese history. This Emperor is supposed to have given to the people (1) the marriage ceremony, (2) musical instruments, (3) the ideogram in writing to replace knot notation, (4) the six domestic animals, (5) the mulberry leaf for the feeding of silkworms, and (6) fish nets.

The Emperor Shen Nung, 2700 B. C., is reputed to have given his people the wooden plow and the art of husbandry. At this time China was supposed to extend as far east as Shantung Province and as far south as the Yangtze Valley.

The greatly famed Yao, who ruled about 2300 B. C. and exhibited marvelous solicitude for the welfare of his people, is credited with having disregarded a worthless son in choosing his successor and nominating, instead, Shun, an obscure person of splendid character. He regulated the calendar, standardized weights and measures, and mitigated the punishments then in vogue. Shun chose a worthy man for his successor in Yü, known as the engineer Emperor, for his ability to control the flood waters of the Yellow River, "by the opening of a passage for the western waters through the present defile at Wu Shan." He is also supposed to have made a survey of the imperial domains.

CHOU DYNASTY.

Although there is a lapse of a thousand years, in passing from Yü to the Chou Dynasty, this period does not seem to have offered much of interest to modern civilization. The Chou Dynasty extended from B. C. 1122 to 249 and represents, in its nine centuries of continuous rule, the longest period of any of China's dynasties. The country during this dynasty seems to have split up into numerous principalities, although it produced some of China's greatest men, among whom were Duke Chou Kung, who is credited with the composition of the Chou Li, a description of the organization of the Government and the ceremonials[1]; the founder of Taoism, Lao Tsz, supposed to have been born about B. C. 604; the great sage Confucius, born B. C. 551 in Shantung, where the present Duke Kung, said to be the seventy-fifth lineal descendant, resides and where the tomb and the ancestral Hall of Confucius are in a splendid state of preservation; and Mencius, the great apostle of Confucius, a contemporary of Plato, born in Shantung near the birthplace of his great master.

EMPEROR CHIN SHIH HUANG TI.

It was the Emperor Chin Shih Huang Ti, about 225 B. C., who succeeded in uniting the China which had during the Chou Dynasty split up into numerous principalities. It was also under this Emperor that the construction of the Great Wall of China was begun—with an army of tens of thousands of men headed by Meng Tien, to whom is also ascribed the invention of the hair brush used for writing.

HAN DYNASTY.

The Han Dynasty, which lasted from B. C. 210 to A. D. 220, has come down as one of the illustrious periods in Chinese history. Although it was marked by great peace and prosperity among the people, yet the banners of China were carried by its military leaders to the shores of the Caspian Sea and trade was established with the markets of Europe. Literature and art were encouraged by the Court and consequently flourished. The Imperial Library, according to the Annals of the Han Dynasty, contained more than 10,000 volumes. A woman, an authoress of note, was named Mistress of Poetry, Eloquence and History, for the Empress. It was during this period that paper is said to have been invented, writing before that time having undoubtedly been done on silk and stone. Buddhism was introduced into China in A. D. 67.

TANG DYNASTY.

The Tang Dynasty, A. D. 618 to 905, is regarded, like the Han Dynasty, as one of the glorious epochs in Chinese history. The boundaries of China were extended and tribes westward to the Caspian Sea were brought under the Chinese Empire. One of its Emperors, T'ai Tsung, was particularly open-minded with respect to foreign religions. In A. D. 621 the first representative of Zoroaster came to China. Mohammedans and Magians established themselves at the capital, Sianfu. A few years later the first of the Nestorian Christians came to China and were welcomed. Literature was encouraged, a literary academy was founded at the capital, a special edition of the classics was printed, and a system of civil-service examinations was perfected, which was continued down to the year 1905 A. D., almost in its original form. The Emperor T'ai Tsung also interested himself in social reforms, introducing the honor or parole system in the prisons. It was during this dynasty that Korea came under Chinese rule. The Tang Dynasty gave China its most noted poet, Li Po, as also the most celebrated painter in the person of Wu Tao-yuan (Wu Tao-tsz). Arab traders established trading posts in Canton during the Tang Dynasty, and history says that a large number of foreigners were actually resident in China at this time. From a census taken in A. D. 754, China's population was given as 53,000,000. China probably rose to its greatest heights as an Asiatic power during the Tang Dynasty.

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[1] Prof. Hirth says of the Chou Li: "As an educator of the nation the Chou Li has probably not its like among the literatures of the world, not excepting even the Bible." It is significant that the six boards of the central Government administration as defined in the Chou Li were perpetuated almost in their original form down to 1900 A. D.

SUNG DYNASTY.

During the eleventh century in China, while the dark curtain of the Middle Ages had fallen on the civilization of Europe, a socialist philosopher statesman, Wang-An-Shih, actually put into practice in a section of China a political system that even to-day must be considered as advanced. This system provided that the State should take entire control of commerce, industry, and agriculture with a view to protecting the working classes. It provided for the establishment of tribunals to regulate the daily wage and the daily price of merchandise. Taxation was levied on the land in proportion to its fertility, and men were taxed according to their ability to pay, the very poor being exempt. Pensions were provided for the aged, support for the unemployed, and assistance to the needy. Seeds were distributed for sowing in waste lands, to be cultivated by those in need of work. Every family with more than two males was obliged to give one to the State to serve as a soldier, and every family had to keep a horse for the State for cavalry purposes in case of need. The ideas of Wang-An-Shih were too advanced for his time and after 10 years' experiment they were abandoned.

In art, literature, and philosophy, the period of this dynasty, the Sung, is characterized as the "Periclean Age of China." In spite of the literary heights to which China ascended, the period was marked by serious internal disturbances which prepared the way for the Mongol conquest, easily effected during the thirteenth century.

MONGOL DYNASTY.

The Mongols ruled China for a hundred years, beginning with their great Emperor Kublai Khan, whose fame spread over the earth through the writings of Marco Polo, the Venetian traveler, who visited China during his reign and gave to the world a vivid picture of this wondrous land, in many respects with a civilization in advance of that of Europe at that time. Christian missions flourished in China during the Mongol Dynasty, especially those of the Catholic orders. The Mongols, as also the Manchus, who came later, permitted the Chinese to continue their administrative system.

MING DYNASTY.

From 1368 to 1644, China enjoyed again the rule of its own Emperors, under the Ming Dynasty, when public schools, libraries, art, and industries were encouraged. The law code was compiled, giving to the people for the first time some idea of the laws under which they were governed. One of the Ming Emperors caused to be produced the largest encyclopedia ever known, a production requiring the labors of 2,000 scholars and resulting in about 500,000 pages. During this Emperor's reign, Cochin-China and Tongking were added to China's vast domains. In 1455 a canal was dug from Peking to Tientsin, connecting with the Grand Canal (the construction of which was begun in the seventh century and completed during Kublai Khan's reign) and bringing Peking into canal communication with the Yangtze River, a distance of 700 miles, so that the tribute rice might find its way directly from central China to the capital by internal waterways.

It is during the Ming Dynasty, early in the sixteenth century, that one finds recorded the arrival of the first Europeans by sea at Canton. Japanese attempted the invasion and conquest of China through Korea during the latter half of the sixteenth century, but were defeated. During the early part of the seventeenth century, Jesuit missionaries established themselves in favorable relations with the Chinese in Peking and became at one time important factors in the court life of the capital, principally because of their superior knowledge of astronomy.

MANCHU DYNASTY.

By playing one party off against another during a period of internal strife, the Manchus, the rugged, hardy tribes of the north, succeeded in wresting China from the Mings and seating their own Emperor on the throne. Like the Mongols several centuries before, they added their own territories to China with their conquest, so China at least gained territorially by the conquests of these northern tribes, who themselves were subsequently absorbed. This foreign dynasty was fated to last from 1644 to 1911, a period of 267 years. It was not without its famous rulers, for in K'ang Hsi and Ch'ien Lung it produced two of the great men who have occupied the throne during the long stretch of China's history. K'ang Hsi ruled 60 years. For American visitors to Peking, it is interesting to note that during K'ang Hsi's reign a great earthquake and fire desolated Peking, destroying the imperial palaces, and that in 1730 a still more severe shock all but destroyed the city.

K'ang Hsi's name will always be associated with the literary works which were the results of his efforts and encouragement, especially the massive concordance and encyclopedia and the dictionary of 44,439 characters that bears his name. Among K'ang Hsi's reforms are to be noted the prohibition of immolation of women, the return of lands unjustly taken from the people, and the encouragement of agriculture. He attempted to abolish the custom of footbinding among Chinese women, to which Manchu women were not addicted, but his efforts failed, as the custom was too deeply rooted and one that education alone could eradicate.

China's first treaty with a foreign power was signed in 1689 with Russia, securing peace between these two neighboring countries for a period of 160 years.

Ch'ien Lung was the fourth of the Manchu Emperors. Like K'ang Hsi, he also ruled for a period of 60 years, the years of his reign embracing nearly the whole of the lifetime of the first American President, George Washington. It is probably safe to make the statement that no ruler during the whole period of China's history reigned over a larger territory than did Ch'ien Lung. He was not only famed as a soldier but his name lives as an ardent patron of art and literature. The Manchu Dynasty declined after Ch'ien Lung's time. Secret societies grew in number and influence; intriguing plotters aspired to positions of power and influence; luxury, dissipation, and inactivity sapped the strength of the Manchu Court and Manchu bannermen—so that the last century of Manchu domination was one of weakness and decline, rather than strength and glory. Unfortunately, it was during these years that men of strong character were most needed to pilot the ship of state, for China's relations with its neighbors and with the West assumed, with the beginning of the nineteenth century, an ever-increasing significance for the welfare of the nation itself.

RELATIONS OF CHINA WITH FOREIGN POWERS.

As an indication of the fact that the United States is by no means a newcomer to the field of China's commerce, it is recorded in the history of our relations with China that from the very inception of our Republic—that is, from the moment the prohibition as a British colony to engage in foreign trade was removed—American ships sailed to China. The first Yankee ship to China, the *Empress of China*, arrived in Canton in 1784, carrying a cargo of ginseng. Maj. Shaw, a supercargo on this ship, carried with him a commission from George Washington as consul to Canton, where he took up his residence as commercial agent without diplomatic functions. In 1805, 37 American vessels carried nearly six million dollars' worth of goods from American ports to Canton and returned laden with Chinese products. By 1852, more than 50 per cent of the foreign shipping coming to the port of Shanghai was carried in American bottoms. In 1829, the first American missionaries came to China.

China's first war with a western nation might have been prevented had those in authority in Peking had a clearer conception of the issue at stake. It resulted in the first Chinese treaty with a western Power, the Treaty of Nanking, in 1842, by the terms of which Hongkong was ceded to Great Britain and the ports of Canton, Amoy, Foochow, Ningpo, and Shanghai were opened to foreign trade. Caleb Cushing, the first American envoy extraordinary to China, was commissioned by our President to conclude a treaty with China, to guarantee to American citizens rights to trade with China. It secured the recognition of the right to the free exercise of the Christian religion in the open ports, not only for Americans but for the nationals of other countries as well. In fact, Caleb Cushing's treaty became the pattern for successive treaties, so broad was it in its general terms and so fair and just in its respect for the rights of others. It was this treaty that carried for the first time the most-favored-nation clause, still more clearly defined in our next treaty, negotiated by Anson Burlingame, and thereafter to appear in all foreign treaties made with China.

Probably China never in its history suffered a more severe calamity than that which came with the Taiping Rebellion, which for 14 years laid waste vast sections of the country, caused the death of from ten to twenty millions of its citizens, and resulted in the impoverishment of as many more, with no compensating good effects. Of interest to Americans is the fact that it was an American, Frederick Ward, of Salem, Mass., who accepted employment with the Chinese Government forces and organized the "Ever Victorious Army" which was responsible for turning the tide in the war, eventually leading to the success of the Government forces.

China's second war with Great Britain was, like the first, of short duration. It resulted in the cession to Great Britain of Kowloon, on the mainland opposite Hongkong, and the opening of Tientsin as a port.

As France had participated with Great Britain in this display of force, made in protest of China's interference in British trade and its nonfulfillment of former treaty obligations, the French Government, through its representatives, also concluded a treaty of peace on this occasion, which exacted from China, in addition to rights accorded by the British treaty, the right of Christians to the free exercise of their religion throughout China and the further right of French missionaries to rent land and buy and construct houses anywhere in China. By virtue of the most-favored-nation clause in the treaties of the other Powers with China, the rights secured by the French for their nationals were also shared by the nationals of the other treaty Powers.

It was during the later years of the Taiping Rebellion that Great Britain, France, and the United States saw fit, because of the occupation of the Chinese city of Shanghai by rebels, to arrange that the collection of maritime customs duties be entrusted to three foreign officials designated by them. This system was altered and developed until a few years after, through the acquiescence of the Chinese and the concurrence of France and the United States, a British subject was placed at the head of the Maritime Customs Administration, on the basis of Great Britain's predominant trade interests. The Customs Administration has continued even to the present day under the directorship of a British subject and with an international personnel. China's obligations to the foreign Powers, for which it has been compelled to pledge the customs revenues as security, strengthened the hold of the foreign Powers on the supervision of the administration of these revenues.

American prestige in China was aided through the labors of Anson Burlingame, the American minister at Peking, who had come into favor with the Peking Government to such a degree that in 1867, when he was ready to retire from his post, the Chinese Government invited him to head a Chinese mission to be sent abroad to proclaim to the western Powers China's desire for progress. Mr. Burlingame's death unfortunately terminated his mission before its conclusion, although the delegation did much to assist China's position among the nations of the west.

American trade and especially American shipping had developed, prior to the outbreak of the Civil War, to such an extent that before

1860 more than 50 per cent of the foreign shipping in the Shanghai harbor was under the American flag. Japanese and German trade interests in China prior to this time were scarcely a factor in China's relations with the outside world. The Civil War, the change from wooden to ironclad ships, the opening up and development of the great West, and domestic developments generally are responsible for the decline in American trade with China, which continued almost to the end of the nineteenth century. The Spanish-American War, with the occupation of the Philippine Islands by the United States, marks a new epoch in our relations with the Far East.

It was not until 1873 that the envoys of the foreign Powers were received in audience before the Emperor. On June 29, 1873, the ministers representing France, Great Britain, Holland, Japan, and the United States were received in audience, but not until 1894 were the foreign envoys received in the precincts of the Palace proper.

France in 1885, as a result of a war on China, annexed Tongking.

Japan, which since the reformation of 1868 had been coming to the fore with its rapid acquisition of western knowledge and western military methods, made war on China in 1894 over the independence of Korea, and in April 1895, a treaty of peace was concluded whereby Japan exacted from China recognition of its equality with the western Powers and of the independence of Korea. Japan took from China, as indemnity, the Island of Formosa, the Liaotung Peninsula in Manchuria, and 200,000,000 taels. Upon joint representations of Germany, France, and Russia, Japan waived its claims to the Liaotung Peninsula in exchange for an additional 30,000,000 taels.

The Manchu régime seemed now to have reached its lowest ebb. After the Chino-Japanese War the general break-up of China was considered probable by European Powers. In 1897 Germany exacted from China, as compensation for the murder of two missionaries, a lease to the harbor and port of Kiaochow and certain exclusive privileges in Shantung Province. Russia followed by taking Port Arthur and Dairen, Great Britain Weihaiwei in Shantung, and France Kwangchow in Kwangtung. "Spheres of influence" were also claimed by these Powers and by Japan.

EFFORTS OF KWANG HSÜ—BOXER REBELLION.

The Chino-Japanese War and the subsequent action of the foreign Powers reacted upon the young Emperor, Kwang Hsü, who, under the advice of the reformer, Kang Yü Wei, put forth in 1898 his famous reform edicts, providing for modern education, railways, and, in general, a program of western development for China. This was too big a project of a constructive nature for the reactionaries, and the Emperor was deprived of power and his reform plans nullified. Subsequently, China's protest against what was regarded as foreign aggression took on another, but a cruder and more disastrous, form in the Boxer rebellion. With the settlement of this rebellion China received a further setback, as an enormous indemnity of 450,000,000 taels ($333,000,000 gold) was exacted from her, with no corresponding provision whereby to meet the added obligations. It was because of the work of the American Secretary of State, John Hay, that the indemnity was not larger and that the actual partition of China did not result, for through his efforts the "open-door" policy was given general recognition, through a note to the Powers, July 3, 1900, to which they, at his suggestion, subscribed. Briefly stated, the purpose was "to afford all possible protection everywhere to foreign life and property; to guard and protect all legitimate foreign interests; to aid in preventing the spread of the disorders to other Provinces of the Empire and a recurrence of such disorders; and to seek a solution which may bring about permanent safety and peace to China, preserve Chinese territorial and administrative entity, protect all rights guaranteed by treaty and international law to friendly Powers, and safeguard for the world the principle of equal and impartial trade with all parts of the Chinese Empire."

MOVEMENTS TOWARD REFORM.

The misfortunes that China had experienced during the past two decades, together with Japan's success in the Russo-Japanese War, had by 1905 awakened the country to a full realization of the necessity of reform. The reactionary Empress Dowager now came forward as the leader in the reform movement, and during 1905 an imperial commission was sent abroad to study a system of representative government, preparatory to giving China a parliament.

One of the most significant reforms came with the announcement, during the same year, that the old methods of civil service examinations, based on the classics and handed down through a period of more than a thousand years, was to be abolished and a modern educational system, to provide a new basis, inaugurated.

In 1906 an edict was issued ordering the abolition of all opium smoking within a period of 10 years. Both the Empress Dowager and the Emperor died in November, 1908. There are probably few more pathetic characters in history than was the Emperor, Kwang Hsü. Genuinely intent upon helping his country and thoroughly alive to the dangers besetting it because of its weakness, he strove to give it what it needed most—namely, modern education, modern transportation, and an effective army and navy, and a good administrative system—only to be outwitted and rendered powerless by those skilled in the art of intrigue and bent upon furthering their own self-centered interests.

CHINA AND JAPAN.

Through the result of the Russo-Japanese War, fought for the most part on Chinese soil and professedly for the restoration of Manchuria to China and the curbing of Russian aggression in Korea and Manchuria, the recognition of the independence of Korea was secured, and only a few years later it was annexed to the Japanese Empire. Japan also succeeded to Russia's lease on Port Arthur and the Liaotung Peninsula. Upon representations made by Japan to China in 1915, this lease, which by the terms of the original agreement would have expired in 1923, was extended, the new terms providing that the lease to Port Arthur and Dairen and the South Manchuria and Antung-Mukden Railways be extended to a period of 90 years and granting, in addition, other important concessions to Japanese subjects in Manchuria and Eastern Inner Mongolia. On May 25, 1915, Japan secured from China an express recognition of Japan's right to all matters of agreement between Japan and Germany regarding Germany's rights in Shantung, taken over by Japan in 1914 and held pending the conclusion of the European war.

REVOLUTION OF 1911—PRESENT SITUATION AND PROSPECTS.

On October 10, 1911, Young China came forth determined to redeem the country of its ancestors in the eyes of the world, and overthrew the Manchu Dynasty. On February 12, 1912, China was proclaimed a republic.

In spite of China's disturbed conditions during the past six years the lives of foreigners and the foreign interests generally have been safe, and the great masses of the Chinese population have remained comparatively unaffected. Foreign trade has actually increased during this time, reaching for the year 1917 the unprecedented total of more than a billion taels (more than $1,000,000,000 United States currency). Modern industry and modern education are making substantial progress. China is going ahead notwithstanding unfavorable political conditions; with a few decades of peace and order its progress will exceed the most sanguine expectations. The resiliency of its people is proverbial.

The outside world should exercise patience and a kindly sympathy toward China during its period of transition. They should bear in mind that the country is one of an enormous area with a tremendous population of reasonable, democratic, good-natured, industrious people, possessing the physical and mental potentialities of the best races in the human family and only in need of more modern education and the facilities necessary for the development of its marvelous treasure house of natural resources. The Chinese people have the capacity for organization, for representative government, for modern industrial and commercial development. They need the constructive sympathy of the West. A country with a civilization as old as China's, with the culture of centuries filtered down through the masses, with the peace-loving, industrious propensities of its people, and with the mental and physical qualities of its sons and daughters, commands our deepest respect and our genuine sympathy in its struggles now to bring itself into line with modern civilization. The people can work out their own salvation if they are given time and assistance. It is well to remember that China has never in its history repudiated any of its foreign obligations and that damages to foreign interests in China have been indemnified in full by the Chinese.

It is believed that the American people spend more money in altruistic endeavor in China each year than comes to them in the profits in their trade with that country. The Chinese welcome American capital, American technical and engineering skill, and American enterprise generally in the development of the New China. In China there is ample opportunity for the spare capital and brains of the world in constructive enterprises for many decades to come.

[NOTE.—The foregoing historical summary has been taken in part from Herbert H. Gowen's "Outline History of China."]

OUTLINE OF CHINESE SYSTEM OF GOVERNMENT.

By Raymond P. Tenney, American Consul.

Following is a list of the different independent departments of the Chinese Government, based on the List of Officials (Chih Yüan Lu), an official publication of the Cabinet, for the third quarter of 1918:

1. Presidency (Ta Tsung T'ung).
2. Vice Presidency (Fu Tsung T'ung).
3. Senate (Ts'an I Yüan).
4. House of Representatives (Chung I Yüan).
5. Cabinet (Kuo Wu Yüan).
6. War Participation Bureau (Tu Pan Tsan Chan Shih Wu Ch'u).
7. Chiang Chün Fu.
8. Audit Department (Shen Chi Yüan).
9. Nine Ministries (Pu).
10. Peking Gendarmerie (Pu Chün T'ung Ling Ya Men).
11. Central Salt Administration (Yen Wu Shu).
12. Revenue Council (Shui Wu Ch'u).
13. General Staff (Ts'an Mou Pen Pu).
14. Supreme Court (Ta Li Yüan).
15. Department of Mongolian and Tibetan Affairs (Meng Tsang Yüan).
16. Administrative Court (P'ing Cheng Yüan).
17. Government of the Metropolitan District (Ching Chao).
18. Government of the Provinces (Sheng).

PRESIDENCY (TA TSUNG T'UNG).

The President is elected in accordance with the terms of the presidential election law of October 5, 1913, which forms the only part of the permanent constitution that has been passed and put into force. Article I provides that " a native of China over 40 years of age, possessing citizen's rights complete and unimpaired, who has lived in the country for upward of 10 years, is eligible for the Presidency of the Republic." Election is by an electoral college composed of the two Houses of the National Assembly sitting together. The term of office is five years, subject to one reelection.

The duties of the President, until the permanent Constitution is promulgated, are as set forth in the Provisional Constitution of March 15, 1912. That instrument provides that the President is the source of all executive powers. He promulgates the laws and issues orders for their execution. He is the Commander in Chief of the Army and Navy. He appoints and removes all civil and military officials on his own responsibility, except in the case of the appointment of members of the Cabinet, ambassadors, and ministers, when the concurrence of the legislature is necessary. With the concurrence of the legislature he can also declare war and conclude treaties. He can introduce bills and veto legislation, but his veto may be overridden by a two-thirds vote of the legislature.

The President may be impeached by the legislature for high treason after a majority vote of three-fourths of a quorum consisting of more than four-fifths of the total number of the members.

VICE PRESIDENCY (FU TSUNG T'UNG).

The office of Vice President is also provided for in the election law of October 5, 1913. The election is held at the same time as that for President. Article 5 provides that the Vice President succeeds to the Presidency, in case the post is vacated, and serves to the end of the President's term.

NATIONAL ASSEMBLY (KUO HUI).

The National Assembly, the legislative branch of the Government, is made up of a senate (Ts'an I Yüan) and a House of Representatives (Chung I Yüan). The powers of the National Assembly are laid down in the Provisional Constitution, but, in fact, this body is still in an experimental stage, the Government having been carried on since the Republic was established in 1912 for the most part without a legislature, the law-making power being exercised by the executive.

CABINET (KUO WU YÜAN).

The Cabinet is composed of a Premier (Kuo Wu Tsung Li) and the Ministers of the nine executive departments, or Ministries (Pu), of Foreign Affairs (Wai Chiao), Interior (Nei Wu), Finance (Ts'ai Cheng), War (Lu Chün), Marine (Hai Chün), Justice (Ssu Fa), Education (Chiao Yü), Agriculture and Commerce (Nung Shang), and Communications (Chiao T'ung).

The members of the Cabinet are provided for in Chapter V of the Provisional Constitution, which states that they shall assist the President in assuming responsibilities and shall countersign all bills introduced and all laws and orders issued by the President.

Eight Councillors (Ts'an I) are attached to the Cabinet Office. There is also a secretariat (Mi Shu T'ing), made up of a chief secretary (Mi Shu Chang), and a number of secretaries (Mi Shu), senior clerks (Ch'ien Shih), and junior clerks (Chu Shih).

A number of semi-independent bureaus are connected with the Cabinet, chief among them being the Bureau of Laws (Fa Chih Chü), the Civil Service Bureau (Ch'ün Hsü Chü), the Bureau of Statistics, (T'ung Chi Chü), the Bureau of Printing (Yin Chu Chü), the Overseas Labor Bureau (Ch'iao Kung Shih Wu Chü), and the National Conservancy Bureau (Ch'uan Kuo Shui Li Chü).

WAR PARTICIPATION BUREAU (TU PAN TSAN CHAN SHIH WU CH'U).

This body was organized after China declared war against Germany and Austria in 1917 and, as its name suggests, is designed to formulate plans and take action in regard to the participation of China in the war. The bureau is made up of a chief, who also holds the position of Premier, and five other members.

CHIANG CHÜN FU.

This body is designed as a military advisory board of the President, being made up of a number of military officers of high rank.

AUDIT DEPARTMENT (SHEN CHI YÜAN).

A system of auditing the Government accounts is provided by a law dated October 3, 1914. All Government offices throughout the country are obliged to submit monthly reports of their receipts and expenditures to the Audit Department at Peking for inspection and verification. The department is also entrusted with the work of auditing the accounts of the whole country for the fiscal year and submitting suggestions to the President.

MINISTRIES (PU).

The organizations of the nine ministries are similar. Each has a general office (Tsung Wu T'ing), which is entrusted with the keeping of the archives, the management of accounts, and other matters relating to the internal affairs of the ministry. Each has a number of departments (Ssu), varying in number between three and eight, which divides the routine work of the ministry.

In each ministry there is one Minister (Tsung Chang) and at least one Vice Minister (Tz'u Chang). The Ministries of Foreign Affairs, Marine, Justice, Education, and Agriculture and Commerce each has one Vice Minister, the other ministries having two each.

The officials next in rank to the Vice Ministers are the councilors (Ts'an Shih), of whom each ministry has four, except the Ministry of Education, which has three. Their duties consist of drafting laws, orders, and documents, under the direction of their superior officers.

Next in rank are the chiefs of departments (Ssu Chang), the secretaries (Mi Shu), the senior clerks (Ch'ien Shih), and junior clerks, (Chu Shih).

(*a*) *The Ministry of Foreign Affairs* (*Wai Chiao Pu*) conducts the foreign relations of the country and has charge of its consular and diplomatic services. It maintains representatives—the special envoys for foreign affairs—in the different Provinces to attend to the local relations with foreigners residing within the country. Tsinghua College, the institution founded at Peking with Boxer indemnity funds that were returned by the United States to China, is under the management of the Ministry of Foreign Affairs.

(*b*) *The Ministry of the Interior* (*Nei Wu Pu*) exercises a general supervision over the administration of local government, elections, charities and philanthropies, relief work, local improvements, policing, and matters relating to copyright and publications, ceremonial and religious observances, public works, and public health. The compilation of various kinds of statistics, including the census figures, also forms part of its work.

(*c*) *The Ministry of Finance* (*Ts'ai Cheng Pu*) is entrusted with the collection of the national revenues, except the maritime customs and salt taxes, which are collected by separate departments. The ministry is the custodian of the National Treasury and has charge of the expenditures and accounts of the Government and of matters relating to the national currency. The negotiation of Government loans is part of the work of the Ministry of Finance. The following institutions are under the direct control of the ministry: The Bank of China; the Government Mints; the Bureau of Engraving and Printing. The powers of the ministry are exercised in the Provinces through the provincial departments of finance.

(*d*) *The Ministry of War* (*Lu Chün Pu*) has charge of the Chinese Army, including the military schools, arsenals, etc., connected therewith.

(*e*) *The Ministry of Marine* (*Hai Chün Pu*) has charge of the Navy and all departments connected therewith.

(*f*) *The Ministry of Justice* (*Ssu Fa Pu*) has charge of the national system of law courts and prisons.

(*g*) *The Ministry of Education* (*Chiao Yü Pu*) is entrusted with the management of the educational affairs of the country, exercising its authority through the provincial departments of education. Control is also exercised directly over the higher educational institutions, such as the Peking Government University, the Peking Higher Normal College, etc., which are located in the capital. The Astronomical Observatory at Peking is also under the management of the ministry.

(*h*) *The Ministry of Agriculture and Commerce* (*Nung Shang Pu*) has charge of all governmental activities relating to agriculture, forestry, fisheries, stock raising, industry, commerce, and mining. Attached to the ministry are a geological survey department, experiment stations for forestry, agriculture, cotton, tea, stock raising, and sugar, and also an office for fixing weights and measures. The ministry works in the Provinces through the provincial departments of industry.

(*i*) *The Ministry of Communications* (*Chiao T'ung Pu*) has the direction of the national railways, posts, telegraphs, and shipping.

PEKING GENDARMERIE (PU CHÜN T'UNG LING YA MEN).

The Peking Gendarmerie is an armed police force (with an organization distinct from either the regular police or the army) designed for the defense and policing of the capital.

CENTRAL SALT ADMINISTRATION (YEN WU SHU).

The Central Salt Administration is constituted in accordance with the terms of article 5 of the Chinese Government Reorganization Loan Agreement of April 21, 1913. While independent of the Ministry of Finance, it is closely associated with it by reason of the fact that the post of Director General (Tu Pan) must always be held by the Minister of Finance, while that of Chief of Administration (Shu Chang) has always been occupied by one of the Vice Ministers of Finance. Within the administration a chief inspectorate has been organized, as provided in the article of agreement above mentioned, which reads in part as follows:

> This Central Salt Administration will comprise a chief inspectorate of salt revenues (Chi Ho Tsung So) under a Chinese chief inspector (Tsung Pan), and a foreign associate chief inspector (Hui Pan), who will constitute the chief authority for the superintendence of the issue of licenses and the compilation of reports and returns of revenues. In each salt-producing district there will be a branch office of the chief inspectorate (Chi Ho Fen So), under one Chinese and one foreign district inspector (So Chang) who shall be jointly responsible for the collection and deposit of the salt revenues. The engagement and dismissal of these Chinese and foreign district inspectors, and of the necessary Chinese and foreign staff at the chief and branch inspectorates, will be decided jointly by the Chinese and foreign chief inspectors, with the approval of the Minister of Finance.

REVENUE COUNCIL (SHUI WU CH'U).

The Revenue Council was created by an edict dated May 9, 1906, to take charge of the maritime customs. Supervision over the customs is exercised through the foreign Inspectorate General of Customs at Peking and the Chinese superintendents of customs (Hai Kuan Chien Tu), who are stationed at the different ports. The principal officials of the Revenue Council are the comptroller general (Tu Pan), the associate comptroller general (Hui Pan), a proctor (Ti Tiao), and an assistant proctor (Pang T'i Tiao).

GENERAL STAFF (TS'AN MOU PEN PU).

The General Staff of the Chinese Army is organized on the same basis as a ministry, under a Chief of Staff and an Assistant Chief of Staff.

SUPREME COURT (TA LI YÜAN).

The Supreme Court is the highest judicial tribunal in the country. It is made up of a Chief Justice and a number of justices, who are apportioned to three civil and two criminal divisions, and five of whom sitting together constitute a court. The Supreme Court stands at the head of the national judicial system, consisting of district courts, located in the different districts (hsien) throughout the country, and higher courts, one of which is established in each Province (Sheng). The jurisdiction of the Supreme Court is both appellate and original, appellate in the case of appeals brought from the higher courts and original in the case of offenses against the State and the international relations of the State, for which the punishment is imprisonment for three or more years, and in the case of impeachment of the President by the National Assembly.

DEPARTMENT OF MONGOLIAN AND TIBETAN AFFAIRS (MENG TSANG YÜAN).

This department, as its name indicates, has charge of the affairs of the outlying possessions of China, in Mongolia and Tibet. The principal officers are a Director General and an Associate Director General, both of whom are Mongols.

ADMINISTRATIVE COURT (P'ING CHENG YÜAN).

The Administrative Court was organized for the purpose of trying impeachments of officials. Deliberations take place before one of the three divisions into which it is divided. The principal officials of the Administrative Court are the chief of the Court (Yüan Chang), who exercises supervisory control over the affairs of the whole court, and 15 judges (P'ing Shih).

METROPOLITAN DISTRICT (CHING CHAO).

The Metropolitan District, the "District of Columbia" of China, comprises an area of about 100 miles square, centering around Peking and including 20 districts (hsien). The chief official, the governor (Ching Chao Yin), whose seat is at Peking, is independent of the provincial authorities and responsible only to the central Government. Within his jurisdiction his functions correspond to those of a governor of a Province.

GOVERNMENT OF THE TWENTY-TWO PROVINCES OF CHINA.

(*a*) The *Military Governor* (*Tu Chün*) is the highest ranking official in each Province. Except in times of disturbance, when military law is proclaimed, his authority extends only over military matters, which he directs subject to the orders of the President, the Ministry of War, and the General Staff at Peking.

(*b*) The *Governor, or Civil Governor* (*Sheng Chang*), is the chief civil authority in each Province. All governmental activities in the Province, except those of a military nature, come within the scope of his authority. In matters relating to foreign affairs, finance, education, industries, and justice, he acts in close touch with the central government at Peking and in consultation with its provincial representatives.

The governor exercises a direct control over the lesser territorial officials in the Province, the taoyins and district magistrates, the latter being appointed or dismissed subject to his recommendation. The governor may issue provincial orders and may suspend the orders issued by the taoyins and district magistrates. He controls the provincial militia and, in case of necessity, may request the cooperation of the regular military establishment.

(*c*) *Bureau of Foreign Affairs* (*Chiao She Shu*).—A special envoy for foreign affairs (Wai Chiao Pu T'e P'ai Chiao She Yüan) is stationed in each Province to conduct the relations with foreigners. He acts under the orders of the Ministry of Foreign Affairs at Peking and in consultation with the governor of the Province.

Branch offices of the bureau of foreign affairs, presided over by commissioners of foreign affairs (Chiao She Yüan, are established in the different treaty ports.

(*d*) *Department of Finance* (*Ts'ai Chang T'ing*).—The chief of the department of finance, subject to the orders of the Ministry of Finance at Peking, and acting in consultation with the governor, has charge of the collection of taxes in the Province. He supervises the activities of the various tax-collecting officials in the Province, including such district magistrates as are empowered to collect taxes.

(*e*) *Department of Education* (*Chiao Yü T'ing*).—The chief of this department acts under the joint direction of the Ministry of Education and the governor and has charge of the educational affairs of the Province.

(*f*) The *Department of Industry* (*Shih Yeh T'ing*)has charge of all governmental activities connected with industrial matters throughout the Province, subject to the joint direction of the Ministry of Agriculture and Commerce and the governor.

(*g*) *Higher Court* (*Kao Teng Shen P'an T'ing*).—The chief judge of this court is the principal judicial authority in the Province. He exercises a supervision over the provincial judiciary, subject to the joint direction of the Ministry of Justice and the governor. The higher court is the highest court of appeal in the Province.

(*h*) *Taoyin.*—Each Province is divided into a number of large divisions, varying between two and seven, called "tao," each under the jurisdiction of an official called a "taoyin."

The taoyin acts under the supervision of the governor of the Province, and within his jurisdiction his powers are similar to those of the governor. He exercises general supervision over all acts of the district magistrates within his jurisdiction. He may issue orders and may cancel orders issued by the district magistrates under him. He may submit recommendations to the governor for the appointment. reward, or punishment of the district magistrates and he may, in case a vacancy occurs, fill it by a temporary appointment.

Like the governor, the taoyin is also given authority to use the militia in his jurisdiction and to apply to the regular military forces for aid when occasion therefor arises. In doing this last, however, except under extraordinary circumstances, he must send his application through the governor.

Finally, the taoyin has the right, in matters of great urgency or importance, to petition the President direct, in which case he must report his action to the governor.

(*i*) *District Magistrate* (*Hsien Chih Shih*).—The district magistrate is the chief civil authority in the third and smallest division of the Province—the district (hsien). The number of districts in each tao varies greatly. The typical district consists of a walled town and its surrounding country.

The duties of a district magistrate are varied. Except in the important centers he is usually the principal judge in the district, exercising his functions under the supervision of the taoyin, the governor, and the higher court. He is also usually the chief tax-collecting official in his district, acting under the supervision of the taoyin, the governor, and the provincial department of finance. Within the scope of his authority he may issue orders. Educational and industrial affairs are under his charge.

The district magistrate is the principal police officer of his district, whether the police force is irregular and of the old style or whether a modern district police station has been established. In the latter case he occupies the position of chief of the district police station.

In matters of importance the district magistrate has the right to petition the governor direct, in which case he must report his action to the taoyin.

Like the governor and the taoyin the district magistrate is given control over the militia in his district, and he may request the cooperation of the regular military forces.

(*j*) *Local Police Departments* (*Ti Fang Ching Ch'a T'ing.*)—Under the terms of a presidential mandate issued in August, 1914, it is provided that local police departments shall be established in each of the provincial capitals and commercial centers, to take charge of matters relating to policing, public health, and fire prevention. The chief of a local police department directs the affairs of his office subject to the supervision of the taoyin and the governor.

(*k*) *District Police Stations* (*Hsien Chin Ch'a So*).—These may be established in the districts or else the districts may rely for their police force on the local train bands. Where a district police station has been established the district magistrate is the chief of the station.

TRANSLATION OF NANKING CONSTITUTION.

Below is a translation of the Nanking constitution, the provisional constitution of March, 1912, which is still recognized as the law of the land, though the revised constitution will undoubtedly be adopted within the next few years.

I. GENERAL PROVISIONS.

ARTICLE 1. The Republic of China is established by the Chinese people.

ART. 2. The sovereignty of the Chinese Republic is vested in the whole body of the people.

ART. 3. The territory of the Chinese Republic consists of the 22 Provinces, Inner and Outer Mongolia, Tibet, and Chinghai (Kokonor).

ART. 4. The sovereignty of the Chinese Republic is exercised by the National Council, the Provisional President, the Cabinet, and the Judiciary.

II. CITIZENS.

ART. 5. Citizens of the Chinese Republic are all equal, and there shall be no racial, class, or religious distinctions.

ART. 6. Citizens shall enjoy the following rights:

(1) No citizen shall be arrested, imprisoned, tried, or punished except in accordance with law.

(2) The habitation of any citizen shall not be entered or searched except in accordance with law.

(3) Citizens shall enjoy the right of the security of their property and the freedom of trade.

(4) Citizens shall have the freedom of speech, of publication, and of association.

(5) Citizens shall have the right of the secrecy of their letters.

(6) Citizens shall have the liberty of residence and removal.

(7) Citizens shall have the freedom of religion.

ART. 7. Citizens shall have the right to petition Parliament.

ART. 8. Citizens shall have the right of petitioning the executive officials.

ART. 9. Citizens shall have the right to institute proceedings before the judiciary, and to receive trial and judgment.

ART. 10. Citizens shall have the right of suing officials in the Administrative Courts for violation of the law or of their rights .

ART. 11. Citizens shall have the right of participating in examinations for official posts.

ART. 12. Citizens shall have the right to vote and of standing for election to representative assemblies.

ART. 13. Citizens shall have the duty of paying taxes according to law.

ART. 14. Citizens shall have the duty of enlisting as soldiers according to law.

ART. 15. The rights of citizens as provided in the present chapter shall be limited or modified by laws, provided such limitation or modification shall be deemed necessary for the promotion of public welfare, for the maintenance of public order, or on account of other urgent necessity.

III. THE NATIONAL COUNCIL (TS'AN YI-YUAN).

ART. 16. The legislative power of the Chinese Republic is exercised by the National Council.

ART. 17. The National Council shall be composed of members elected by the several districts as provided in Article 18.

ART. 18. The Provinces, Inner and Outer Mongolia, and Tibet shall each elect and depute five members to the National Council, and Chinghai (Kokonor) shall elect one member.

The electoral districts and methods of election shall be decided by the localities concerned.

During the meeting of the National Council each member shall have one vote.

ART. 19. The National Council shall have the following powers:

(1) To pass all laws.

(2) To pass the budgets of the Provisional Government.

(3) To pass measures of taxation, of currency, and of weights and measures for the whole country.

(4) To pass measures for the incurring of public loans and to conclude agreements affecting the National Treasury.

(5) To give consent to matters provided in Articles 34, 35, and 40.

(6) To reply to inquiries from the Provisional Government.

(7) To receive and consider petitions of citizens.

(8) To make suggestions to the Government on laws or other matters.

(9) To introduce interpellations to the members of the Cabinet and to insist on their being present in the Council in making replies thereto.

(10) To insist on Government investigation into any alleged bribery and infringement of laws by officials.

(11) To impeach the Provisional President, if he be held to have acted as a traitor, by a majority vote of three-fourths of the members present with a quorum of more than four-fifths of the total number of members.

(12) To impeach any member of the Cabinet, if he be held to have failed to perform his official duties or to have violated the law, by a majority vote of two-thirds of the members present with a quorum of over three-fourths of the total number of members.

ART. 20. The National Council may itself convoke, conduct, and adjourn its own meetings.

ART. 21. The meetings of the National Council shall be conducted publicly, but meetings may be held "in camera" at the demand of any member of the Cabinet or of a majority vote.

ART. 22. Matters passed by the National Council shall be communicated to the Provisional President for promulgation and execution.

ART. 23. If the Provisional President should veto matters passed by the National Council, he shall, within 10 days after he has received such resolutions, return the same with stated reasons to the Council for reconsideration. If the same matter should again be passed by a two-thirds vote of the Council, it shall be dealt with in accordance with Article 22.

ART. 24. The President of the National Council shall be elected by open ballot of the voting members, and the one who receives more than one-half of the total number of the votes cast shall be elected.

ART. 25. Members of the National Council shall not, outside the Council hall, be responsible for their opinions expressed and votes cast in the Council.

ART. 26. Members of the Council shall not be arrested without the permission of the President of the Council except for flagrant offences or during internal disturbance or foreign invasion.

ART. 27. The procedure of the National Council shall be decided by its own members.

ART. 28. The National Council shall be dissolved on the day of the convocation of the National Assembly, and its powers shall be exercised by the latter.

IV. THE PROVISIONAL PRESIDENT AND VICE PRESIDENT.

ART. 29. The Provisional President and Vice President shall be elected by the National Council, by vote of two-thirds of the members present at a sitting of the Council consisting of over three-fourths of the total number of members.

ART. 30. The Provisional President represents the Provisional Government as the fountain of all executive powers and promulgates all laws.

ART. 31. The Provisional President may issue or cause to be issued orders for the execution of laws and of powers delegated to him by the law.

ART. 32. The Provisional President shall be the commander-in-chief of the army and navy of the whole of China.

ART. 33. The Provisional President shall ordain and establish the administrative system and official regulations, but he must first submit them to the National Council for its approval.

ART. 34. The Provisional President shall appoint and remove civil and military officials, but in the appointment of members of the Cabinet, ambassadors, and ministers he must have the concurrence of the National Council.

ART. 35. The Provisional President shall have power, with the concurrence of the National Council, to declare war and conclude treaties.

ART. 36. The Provisional President may, in accordance with law, declare a state of siege.

ART. 37. The Provisional President shall, representing the whole country, receive ambassadors and ministers of foreign countries.

ART. 38. The Provisional President may introduce bills into the National Council.

ART. 39. The Provisional President may confer decorations and other insignia of honor.

Art. 40. The Provisional President may declare general amnesty, grant special pardon, commute a punishment, and restore rights, but in the case of a general amnesty he must have the concurrence of the National Council.

Art. 41. In case the Provisional President is impeached by the National Council; he shall be tried by a special court consisting of nine judges elected among the justices of the supreme court of the realm.

Art. 42. If the Provisional President vacates his office from any cause, or is unable to discharge the powers and duties of the said office. the Provisional Vice President shall attend to his duties.

V. MINISTERS OF STATE.

Art. 43. The Premier and the heads of the Government Departments shall be called Ministers.

Art. 44. Ministers of State shall assist the Provisional President in assuming responsibilities.

Art. 45. Ministers of State shall countesign all bills introduced by the Provisional President and all laws and orders issued by him.

Art. 46. Ministers of State and their deputies may be present and speak in the National Council.

Art. 47. If any Minister of State is impeached by the National Council, the Provisional President may remove him from office, but such removal shall be subject to the reconsideration of the National Council.

VI. COURTS OF JUSTICE.

Art. 48. The judiciary shall be composed of judges appointed by the Provisional President and the Minister of Justice.

The organization of the courts and the qualifications of judges shall be determined by law.

Art. 49. The judiciary shall try civil and criminal cases, but cases involving administrative affairs or arising from other particular causes shall be dealt with according to special laws.

Art. 50. The trial of cases in the law courts shall be conducted publicly, but those affecting public safety and order may be held " in camera."

Art. 51. Judges shall be independent and shall not be subject to the interference of higher officials.

Art. 52. Judges during their continuance in office shall not have their emoluments decreased and shall not be transferred to other offices, nor shall they be removed from office except when they are convicted of crimes or of offenses punishable according to law by removal from office.

Regulations for the punishment of judges shall be determined by law.

VII. SUPPLEMENTARY ARTICLES.

Art. 53. Within 10 months after the promulgation of this Provisional Constitution the Provisional President shall convene a National Assembly, the organization of which and the laws for the election of whose members shall be decided by the National Council.

Art. 54. The Constitution of the Republic of China shall be adopted by the National Assembly, but before the promulgation of the Constitution the Provisional Constitution shall have the same force as the Constitution itself.

Art. 55. The Provisional Constitution may be amended by the assent of three-fourths of the members of the National Council present at a quorum of two-thirds of the whole number; or upon the application of the Provisional President by a majority vote of three-fourths at a quorum of the Council of four-fifths of the total number of its members.

Art. 56. The present Provisional Constitution shall take effect on the date of its promulgation, and the fundamental articles for the organization of the Provisional Government shall cease to be effective on the same date.

COMMERCIAL TREATY BETWEEN CHINA AND UNITED STATES.

The following is the text of the commercial treaty between China and the United States:

ARTICLE I. In accordance with international usage, and as the diplomatic representative of China has the right to reside in the capital of the United States, and to enjoy there the same prerogatives, privileges, and immunities as are enjoyed by the similar representative of the most favored nation, the diplomatic representative of the United States shall have the right to reside at the capital of His Majesty the Emperor of China. He shall be given audience of His Majesty the Emperor whenever necessary to present his letters of credence or any communication from the President of the United States. At all such times he shall be received in a place and in a manner befitting his high position, and on all such occasions the ceremonial observed toward him shall be that observed toward the representatives of nations on a footing of equality, with no loss of prestige on the part of either.

The diplomatic representatives of the United States shall enjoy all the prerogatives, privileges, and immunities accorded by international usage to such representatives, and shall in all respects be entitled to the treatment extended to similar representatives of the most favored nation.

The English text of all notes or dispatches from United States officials to Chinese officials, and the Chinese text of all from Chinese officials to United States officials, shall be authoritative.

ART. II. As China may appoint consular officers to reside in the United States and to enjoy there the same attributes, privileges, and immunities as are enjoyed by consular officers of other nations, the United States may appoint, as its interests may require, consular officers to reside at the places in China that are now or that may hereafter be opened to foreign residence and trade. They shall hold direct official intercourse and correspondence with the local officers of the Chinese Government within their consular districts, either personally or in writing as the case may require, on terms of equality and reciprocal respect. These officers shall be treated with due respect by all Chinese authorities. and they shall enjoy all the attributes, privileges, and immunities, and exercise all the jurisdiction over their nationals which are or may hereafter be extended to similar officers of the nation the most favored in these respects. If the officers of either Government are disrespectfully treated or aggrieved in any way by the authorities of the other, they shall have the right to make representation of the same to the superior officers of their own Government, who shall see that full inquiry and strict justice be had in the premises. And the said consular officers of either nation shall carefully avoid all acts of offense to the officers and people of the other nation.

ART. III. Citizens of the United States may frequent, reside, and carry on trade, industries, and manufactures, or pursue any lawful avocation in all the ports or localities of China which are now open or may hereafter be opened to foreign residence and trade; and, within the suitable localities at those places which have been or may be set apart for the use and occupation of foreigners, they may rent or purchase houses, places of business, and other buildings, and rent or lease in perpetuity land and build thereon. They shall generally enjoy as to their persons and property all such rights, privileges, and immunities as are or may hereafter be granted to the subjects or citizens of the nation the most favored in these respects.

ART. IV. The Chinese Government, recognizing that the existing system of levying dues on goods in transit, and especially the system of taxation known as likin, impedes the free circulation of commodities to the general injury of trade, hereby undertakes to abandon the levy of likin and all other transit dues throughout the Empire and to abolish the offices, stations, and barriers maintained for their collection and not to establish other offices for levying dues on goods in transit. It is clearly understood that after the offices, stations, and barriers for taxing goods in transit have been abolished no attempt shall be made to reestablish them in any form or under any pretext whatsoever.

The Government of the United States, in return, consents to allow a surtax, in excess of the tariff rates for the time being in force, to be imposed on foreign goods imported by citizens of the United States and on Chinese produce destined for export abroad or coastwise. It is clearly understood that in no case shall the surtax on foreign imports exceed one and one-half times the import duty leviable in terms of the final protocol signed by China and the Powers on the seventh day of September, A. D. 1901; that the payment of the import duty and surtax shall secure for foreign imports, whether in the hands of Chinese or foreigners, in original packages or otherwise, complete immunity from all other taxation, examination, or delay; that the total amount of taxation, inclusive of the tariff export duty, leviable on native produce for export abroad shall, under no circumstances, exceed 7½ per cent ad valorem.

Nothing in this article to interfere with the inherent right of China to levy such other taxes as are not in conflict with its provisions.

Keeping these fundamental principles in view, the High Contracting Parties have agreed upon the following method of procedure:

The Chinese Government undertakes that all offices, stations, and barriers of whatsoever kind for collecting likin, duties, or such like dues on goods in transit shall be permanently abolished on all roads, railways, and waterways in the 19 Provinces of China and the 3 eastern Provinces. This provision does not apply to the native customs offices at present in existence on the seaboard, at open ports where there are offices of the Chinese Maritime Customs, and on the land frontiers of China embracing the 19 Provinces and the 3 eastern Provinces.

Wherever there are offices of the Chinese Maritime Customs, or wherever such may be hereafter placed, native customs offices may also be established, as well as at any point either on the seaboard or land frontiers.

The Government of the United States agrees that foreign goods on importation, in addition to the effective 5 per cent import duty as provided for in the protocol of 1901, shall pay a special surtax of one and one-half times the amount of the said duty to compensate for the abolition of likin, of other transit dues besides likin, and of all other taxation on foreign goods, and in consideration of the other reforms provided for in this article.

The Chinese Government may recast the foreign export tariff with specific duties, as far as practicable, on a scale not exceeding 5 per cent ad valorem; but existing export duties shall not be raised until at least six months' notice has been given. In cases where existing export duties are above 5 per cent, they shall be reduced to not more than that rate. An additional special surtax of one-half the export duty payable for the time being, in lieu of internal taxation of all kinds, may be levied at the place of original shipment or at the time of export on goods exported either to foreign countries or coastwise.

Foreign goods which bear a similarity to native goods shall be furnished by the customs officers, if required by the owner, with a protective certificate for each package, on the payment of import duty and surtax, to prevent the risk of any dispute in the interior.

Native goods brought by junks to open ports, if intended for local consumption, irrespective of the nationality of the owner of the goods, shall be reported at the native customs offices only, to be dealt with according to the fiscal regulations of the Chinese Government.

Machine-made cotton yarn and cloth manufactured in China, whether by foreigners at the open ports or by Chinese anywhere in China, shall as regards taxation be on a footing of perfect equality. Such goods upon payment of the taxes thereon shall be granted a rebate of the import duty and of two-thirds of the import surtax paid on the cotton used in their manufacture if it has been imported from abroad, and of all duties paid thereon if it be Chinese-grown cotton. They shall also be free of export duty, coast-trade duty, and export surtax. The same principle and procedure shall be applied to all other products of foreign type turned out by machinery in China.

A member or members of the Chinese Maritime Customs foreign staff shall be selected by the governors general and governors of each of the various Provinces of China for their respective Provinces, and appointed in consultation with the inspector general of Maritime Customs, for duty in connection with native customs affairs to have a general supervision of their working.

Cases where illegal action is complained of by citizens of the United States shall be promptly investigated by an officer of the Chinese Government of sufficiently high rank, in conjunction with an officer of the United States Government, and an officer of the Chinese Maritime Customs, each of sufficient standing; and, in the event of it being found by the investigating officers that the complaint is well founded and loss has been incurred, due compensation shall be paid through the Maritime Customs. The high provincial officials shall be held responsible that the officer guilty of the illegal action shall be severely punished and removed from his post. If the complaint is shown to be frivolous or malicious, the complainant shall be held responsible for the expenses of the investigation.

When the ratification of this treaty shall have been exchanged by the High Contracting Parties hereto, and the provisions of this article shall have been accepted by the Powers having treaties with China, then a date shall be agreed upon when the provisions of this article shall take effect and an edict shall be published in due form on yellow paper and circulated throughout China setting forth the abolition of all likin taxation, duties on goods in transit, offices, stations, and barriers for collecting the same, and of all descriptions of internal taxation on foreign goods and on the export native goods, and the other fiscal changes and reforms provided for in this article, all of which shall take effect from the said date. The edict shall state that the provincial high officials are responsible that any official disregarding the letter or the spirit of its injunction shall be severely punished and removed from his post.

Art. V. The tariff duties to be paid by citizens of the United States on goods imported into China shall be as set forth in the schedule annexed hereto and made part of this treaty, subject only to such amendments and changes as are authorized by Article IV of the present convention or as may hereafter be agreed upon by the High Contracting Powers hereto. It is expressly agreed, however, that citizens of the United States shall at no time pay other or higher duties than those paid by the citizens or subjects of the most favored nation.

Conversely, Chinese subjects shall not pay higher duties on their imports into the United States than those paid by the citizens or subjects of the most favored nation.

Art. VI. The Government of China agrees to the establishment by citizens of the United States of warehouses approved by the proper Chinese authorities as bonded warehouses at the several open ports of China for storage, repacking, or preparation for shipment of lawful goods, subject to such necessary regulations for the protection of the revenue of China, including a reasonable scale of fees according to commodities, distance from the custom-house, and hours of working, as shall be made from time to time by the proper officers of the Government of China.

Art. VII. The Chinese Government, recognizing that it is advantageous for the country to develop its mineral resources, and that it is desirable to attract foreign as well as Chinese capital to embark in mining enterprises, agrees, within one year from the signing of this treaty, to initiate and conclude the revision of the existing mining regulations. To this end China will, with all expedition and earnestness, go into the whole question of mining rules; and selecting from the rules of the United States and other countries regulations which seem applicable to the condition of China, will recast its present mining rules in such a way as, while promoting the interests of Chinese subjects and not injuring in any way the sovereign rights of China, will offer no impediment to the attraction of foreign capital nor place foreign capitalists at a greater disadvantage than they would be under generally accepted foreign regulations; and will permit citizens of the United States to carry on in Chinese territory mining operations and other necessary business relating thereto provided they comply with the new regulations and conditions which will be imposed by China on its subjects and foreigners alike, relating to the opening of mines, the renting of mineral land, and the payment of royalty, and provided they apply for permits, the provisions of which in regard to necessary business relating to such operations shall be observed. The residence of citizens of the United States in connection with such mining operations shall be subject to such regulations as shall be agreed upon by and between the United States and China.

Any mining concession granted after the publication of such new rules shall be subject to their provisions.

ART. VIII. Drawback certificates for the return of duties shall be issued by the Chinese Maritime Customs to citizens of the United States within three weeks of the presentation to the Customs of the papers entitling the applicant to receive such drawback certificates, and they shall be receivable at their face value in payment of duties of all kinds (tonnage dues excepted) at the port of issue; or shall, in the case of drawbacks on foreign goods reexported within three years from the date of importation, be redeemable by the Maritime Customs in full in ready money at the port of issue, at the option of the holders thereof. But if, in connection with any application for a drawback certificate, the Customs authorities discover an attempt to defraud the revenue, the applicant shall be dealt with and punished in accordance with the stipulations provided in the Treaty of Tientsin, Article XXI, in the case of detected frauds on the revenue. In case the goods have been removed from Chinese territory, then the consul shall inflict on the guilty party a suitable fine to be paid to the Chinese Government.

ART. IX. Whereas the United States undertakes to protect the citizens of any country in the exclusive use within the United States of any lawful trade-marks, provided that such country agrees by treaty or convention to give like protection to the citizens of the United States:—

Therefore the Government of China, in order to secure such protection in the United States for its subjects, now agrees to fully protect any citizen, firm, or corporation of the United States in the exclusive use in China of any lawful trade-mark to the exclusive use of which in the United States they are entitled, or which they have adopted and used, or intend to adopt and use as soon as registered, for exclusive use within China. To this end the Chinese Government agrees to issue by its proper authorities proclamations, having the force of law, forbidding all subjects of China from infringing on, imitating, colorably imitating, or knowingly passing off an imitation of trade-marks belonging to citizens of the United States, which shall have been registered by the proper authorities of the United States at such offices as the Chinese Government will establish for such purpose, on payment of a reasonable fee, after due investigation by the Chinese authorities, and in compliance with reasonable regulations.

ART. X. The United States Government allows subjects of China to patent their inventions in the United States and protects them in the use and ownership of such patents. The Government of China now agrees that it will establish a Patent Office. After this office has been established and special laws with regard to inventions have been adopted, it will thereupon, after the payment of the prescribed fees, issue certificates of protection, valid for a fixed term of years, to citizens of the United States on all their patents issued by the United States in respect of articles the sale of which is lawful in China, which do not infringe on previous inventions of Chinese subjects, in the same manner as patents are to be issued to subjects of China.

ART. XI. Whereas the Government of the United States undertakes to give the benefits of its copyright laws to the citizens of any foreign State which gives to the citizens of the United States the benefits of copyright on an equal basis with its own citizens:—

Therefore the Government of China, in order to secure such benefits in the United States for its subjects, now agrees to give full protection, in the same way and manner and subject to the same conditions upon which it agrees to protect trade-marks, to all citizens of the United States who are authors, designers, or proprietors of any book, map, print, or engraving especially prepared for the use and education of the Chinese people, or translation into Chinese of any book, map, print, or engraving or translation in China during 10 years from the date of registration. With the exception of the books, maps, etc., specified above, which may not be reprinted in the same form, no work shall be entitled to copyright privileges under this article. It is understood that Chinese subjects shall be at liberty to make, print, and sell original translations into Chinese of any works written or of maps compiled by a citizen of the United States. This article shall not be held to protect against due process of law any citizen of the United States or Chinese subject who may be author, proprietor, or seller of any publication calculated to injure the well-being of China.

ART. XII. The Chinese Government having in 1898 opened the navigable inland waters of the Empire to commerce by all steam vessels, native or foreign, that may be specially registered for the purpose, for the conveyance of passengers and lawful merchandise.—citizens, firms, and corporations of the United States may engage in such commerce on equal terms with those granted to subjects of any foreign power.

In case either party hereto considers it advantageous at any time that the rules and regulations then in existence for such commerce be altered or amended, the Chinese Government agrees to consider amicably and to adopt such modifications thereof as are found necessary for trade and for the benefit of China.

The Chinese Government agrees that, upon the exchange of the ratifications of this treaty, Mukden and Antung, both in the Province of Shengking, will be opened by China itself as places of international residence and trade. The selection of suitable localities to be set apart for international use and occupation and the regulations for these places set apart for foreign residence and trade shall be agreed upon by the Government of the United States and China after consultation together.

ART. XIII. China agrees to take the necessary steps to provide for a uniform national coinage which shall be legal tender in payment of all duties, taxes, and other obligations throughout the country by the citizens of the United States as well as Chinese subjects. It is understood, however, that all customs duties shall continue to be calculated and paid on the basis of the Haikwan tael.

ART. XIV. The principles of the Christian religion, as professed by the Protestant and Roman Catholic churches, are recognized as teaching men to do good and to do to others as they would have others to do to them. Those who quietly profess and teach these doctrines shall not be harassed or persecuted on account of their faith. Any person, whether citizen of the United States or Chinese convert, who, according to these tenets, peaceably teaches and practices the principles of Christianity shall in no case be interfered with or molested therefor. No restrictions shall be placed on Chinese joining Christian churches. Converts and nonconverts, being Chinese subjects, shall alike conform to the laws of China; and shall pay due respect to those in authority, living together in peace and amity; and the fact of being converts shall not protect them from the consequences of any offense they may have committed before or may commit after their admission into the church, or exempt them from paying legal taxes levied on Chinese subjects generally, except taxes levied and contributions for the support of religious customs and practices contrary to their faith. Missionaries shall not interfere with the exercise by the native authorities of their jurisdiction over Chinese subjects; nor shall the native authorities make any distinction between converts and non-converts, but shall administer the laws without partiality so that both classes can live together in peace.

Missionary societies of the United States shall be permitted to rent and to lease in perpetuity, as the property of such societies, buildings or lands in all parts of the country for missionary purposes and, after the title deeds have been found in order and duly stamped by the local authorities, to erect such suitable buildings as may be required for carrying on their good work.

ART. XV. The Government of China having expressed a strong desire to reform its judicial system and to bring it into accord with that of western nations, the United States agrees to give every assistance to such reform and will also be prepared to relinquish extraterritorial rights when satisfied that the state of the Chinese laws, the arrangements for their administration, and other considerations warrant it in so doing.

ART. XVI. The Government of the United States consents to the prohibition by the Government of China of the importation into China of morphia and of instruments for its injection, excepting morphia and instruments for its injection imported for medical purposes, on payment of tariff duty, and under regulations to be framed by China which shall effectually restrict the use of such import to the said purposes. The prohibition shall be uniformly applied to such importation from all countries. The Chinese Government undertakes to adopt at once measures to prevent the manufacture in China of morphia and of instruments for its injection.

ART. XVII. It is agreed between the High Contracting Parties hereto that all the provisions of the several treaties between the United States and China which were in force on the first day of January A. D. 1900, are continued in full force and effect except in so far as they are modified by the present treaty or other treaties to which the United States is a party.

The present treaty shall remain in force for a period of 10 years beginning with the date of the exchange of ratifications and until a revision is effected as hereinafter provided.

It is further agreed that either of the High Contracting Parties may demand that the tariff and the articles of this convention be revised at the end of 10 years from the date of exchange of the ratifications thereof. If no revision is demanded before the end of the first term of 10 years, then these articles in their present form shall remain in full force for a further term of 10 years reckoned from the end of the first term, and so on for successive periods of 10 years.

The English and Chinese texts of the present treaty and its three annexes have been carefully compared; but, in the event of there being any difference of meaning between them, the sense as expressed in the English text shall be held to be the correct one.

This treaty and its three annexes shall be ratified by the two High Contracting Parties in conformity with their respective constitutions, and the ratifications shall be exchanged in Washington not later than 12 months from the present date.

In testimony whereof, we, the undersigned, by virtue of our respective powers, have signed this treaay in duplicate in the English and Chinese languages, and have affixed our respective seals.

Done at Shanghai, this eighth day of October in the year of our Lord one thousand nine hundred and three, and in the twenty-ninth year of Kuang Hsu, eighth month and eighteenth day.

LU HAI-HUAN.
SHENG HSUAN-HUAI.

EDWIN H. CONGER.
JOHN GOODNOW.
JOHN F. SEAMAN.

JUDICIAL PROCEDURE IN CHINA.

By Mahlon H. Perkins, American Consul and Mixed-Court Assessor.

INTRODUCTION.

The American newly arrived in China discovers that there is a system of judicial arrangements entirely different from those at home or in most other parts of the world. He hears of the United States Court for China, the British Supreme Court; picks up the papers and reads of a Chinese being convicted of theft in the Mixed Court before the Chinese magistrate and the Japanese assessor, etc.; and often he will reside for years in the country without being accurately informed of the principles of this judicial system and the agreements by which it was first put into effect. When an American goes to France or Great Britain, he knows that he becomes subject to the laws of the country in which he happens to be. He does not find this oppressive, because as a general rule, the laws of those countries give him substantially the same kind of protection as he received at home. When, however, foreigners first came to China they found a quite different state of affairs. The Chinese criminal law, in its administration at that time, contained provisions for forms of punishment unknown in their home lands. For small offenses, culprits were ordered to wear the "cangque" (a square wooden collar. 3 or 4 feet across) about their necks for so many days, while for others they were beaten with the "bamboo"; and the death penalty was often imposed, in various cruel ways.

EXTRATERRITORIALITY.

Westerners soon found that they would be obliged to secure for themselves exemption from operation of the native law of China, and their governments concluded with the Empire of China a series of treaties by which their nationals were so removed from that law. This did not mean, however, that these foreign traders were to live as they pleased under no restraint; for it was agreed that the foreign treaty Powers were to establish their own courts in China and that each power would exercise jurisdiction over its own nationals. The individual would thus be subject only to the laws of his own country thus extended abroad for this peculiar and special puropse. This system of judicial arrangements is known to international law as extraterritoriality, and the courts so established as extraterritorial courts. One of the earliest treaties so concluded was that of the United States with China in 1844; this was found to suit so well the purposes in mind that it formed the basis of other treaties between China and European nations. It should be borne in mind that these rights of exemption from the operation of Chinese law are not inherent rights appertaining to every foreigner the moment that he arrives on Chinese soil, but belong only to the nationals of those countries who have concluded treaties to this effect with China. Several nations, especially some of the South American states, have no such treaties, and their citizens could not properly claim any such exemption. In actual practice, however, the number of persons of non-treaty powers in China is very few, and they often become registered as under the protection of, or "protégés" of, treaty powers; and to this course the Chinese Government has not been inclined to take exception.

EXERCISE OF JUDICIAL POWERS BY FOREIGNERS.

The method by which the western governments put into effect this treaty right was by clothing their consuls with judicial powers. Every consul was made the judge in his own district, and his jurisdiction was confined, of course, solely to the persons of his own nationality. The Minister at Peking was made an appellate judge over the consuls. As it frequently happened that consular officers were not men of legal training, they were authorized to summon certain of their own citizens to assist them in the trial of cases. Such persons were known as associates, and their functions were limited to advising the consul, who was made fully responsible for the decision of the case. In the course of time, with the development of trade and the constant increase of foreign residents, it became necessary for the countries having large interests in China to establish a more complete system in the larger ports with trained judicial officers. The British Government established at Shanghai a Supreme Court, which has original jurisdiction in all but very small cases in this principal treaty port in China and also hears on appeal cases from the British consular courts in the smaller courts. In 1906, the United States court for China was established at Shanghai and took over the judicial powers formerly in the hands of the Minister at Peking, together with a certain amount of the judicial functions of the consuls, the purpose being to vest in this court the bulk of the judicial functions and to leave to the Consuls in the smaller ports only the handling of the less important matters, of such minor character as did not justify the time and expense of a transfer to Shanghai for hearing.

The immense importance of the rights thus acquired will be easily seen. At the time, it was not regarded as in any way derogatory to the sovereignty of China that Americans in China, for instance, should be only under their own laws. Similar rights were granted to the United States by Japan, but the Japanese came in time to look upon this as an infringement upon their rights, and negotiated finally for the cancellation of all such clauses in their treaties. The Chinese have naturally desired to follow the same course. Extraterritoriality has no justification as a permanent arrangement beyond such a date as the administration of the Chinese law shall be brought to a parity with that of other nations, and its length of life will therefore be in inverse ratio to the progress that is made in that direction.

ACQUIREMENT OF ADMINISTRATIVE AND TRADING RIGHTS.

Another form of extraterritoriality in China has been the acquirement by western nations of certain administrative and trading rights in certain limited areas of the principal Chinese ports. With the exception of missionary organizations, foreigners have not been allowed to own land or to carry on business in the interior of China and have been restricted in these matters to certain specified ports which have been thrown open by the Chinese Government to foreign trade. The word "port" is not used in the sense exclusively of a place upon the seacoast, but in the literal meaning of a "gate," or any place of entry or exit where customs charges are levied; and there are thus treaty "ports" on the rivers of the interior and upon the frontiers of the west where overland trade enters from other parts of Asia.

At some, but not all, of these "ports" certain administrative rights have been given to the foreigner, corresponding approximately to the functions of our own municipal administrations, namely, control of police and fire protection, construction of roads and all public works, public education, lighting, water, transportation, and the raising of taxes for this purpose. These rights are restricted to certain well-defined areas outside of which the Chinese retain full control in all such matters. At Shanghai, such grants were originally made to the Americans, British, and French. The French still retain a settlement of their own; but the British and American sections were amalgamated in one International Settlement open on the same terms to the subjects of all the treaty powers. At such ports as Hankow and Tientsin there are several such concessions to the various powers, but at most of the smaller ports there are no such definite administrative areas and the whole administration rests with the Chinese. As a matter of fact, however, foreigners have in places, such as Chefoo, for instance, formed "extra-legal" associations which collect taxes for certain common public purposes; but such associations have no legal status and thus can not take any compulsory measures. Within the limits of these ports, land may be rented in perpetuity by foreigners, and the Chinese deeds for it are registered at the consulate of the national concerned. As stated above, missionary organizations alone are entitled to secure land in the interior.

"MIXED CASES."

With a view to promoting the ends of justice, a reciprocal agreement was also provided in all the treaties whereby, in cases between foreigners and Chinese, an official representing the Government of the plaintiff should sit in court with the judge trying the case of the country of the defendant. Thus in a suit brought by an American citizen against a Chinese citizen, a deputy of the American consul would sit with the Chinese magistrate in the hearing of the testimony. And likewise a Chinese official is entitled to be present in a like capacity in all cases of Chinese against American citizens heard in the consular courts or in the United States Court for China. The visiting official is entitled to produce witnesses and to examine them, and in general to satisfy himself that the case is proceeding in a manner that is not prejudicial to the interests of the litigant who is his national. Such cases are known as mixed cases. Naturally they are of rare occurrence in the interior, but in the larger treaty ports there are always many cases of this kind. The most important example of this kind of procedure is found in the Chinese court of the foreign settlement at Shanghai, which is known as the Mixed Court of the International Settlement. This is by far the busiest and most important court of this great city. In addition to caring for all the criminal and civil litigation of a population of more than half a million Chinese, there are also tried there each year several hundred of these mixed cases of foreigners against Chinese. The larger nations maintain at their consulates in Shanghai special consular officers whose duty it is to "watch" the cases of their nationals in the Mixed Court. These consular officers are trained in the Chinese language and frequently are men of legal training. They are known as "mixed-court assessors." In Shanghai, by special arrangement, they also sit in cases, of both civil and criminal character, in which only Chinese are concerned as plaintiffs and defendants. The administration of the law, especially of the criminal law, is bound up so closely with the interests of the foreign settlement as a whole, that it has been thought essential that there should be a joint administration thereof. But this does not obtain, of course, except in the foreign settlement at Shanghai and a few other places where there are foreign concessions.

POSITION OF CONSULS IN RELATION TO AMERICAN CLAIMS.

Americans in China who become involved in difficulties should take up their cases with the consul of the district in which they happen to reside and should avoid dealing directly with Chinese officials, a course of procedure to which they are not entitled by treaty. If the consul is satisfied that the claim made is apparently a correct one, he will endeavor to have it satisfied, if possible, without resorting to litigation; but, if necessary, he will file the case in the appropriate Chinese court and will send a deputy to watch the hearing. A consul, however, dislikes to be called upon to extricate his nationals from the difficulties of cases that they have attempted to carry through by themselves, to no purpose. Business men in the United States, when having difficulties in such ports as Shanghai, Hankow, and Tientsin should not expect the consul to act as their legal representative or business agent. There are English-speaking attorneys in all of these cities, and the channels of judicial redress are as well defined as in the United States. Consular officers will always help their nationals to see that their claims are placed in proper hands. In the smaller ports, where the pressure of routine business is not so heavy and where there is an absence of qualified attorneys, consular officers may take upon themselves a somewhat wider measure of activity on behalf of their nationals than in the cities above mentioned. It should be borne in mind, however, that the consul is forbidden to act as an attorney or business agent; and the services he is called upon to perform are only those of a reasonable and general character consistent with the proper handling of the many and varied duties devolving upon him.

AMERICAN COURTS IN CHINA.

By Charles Sumner Lobingler, Judge of the United States Court for China.

ORIGIN.

America seems to have been the first power to commission a consul in China. The other countries do not appear to have sent theirs until after the Treaty of Nanking in 1842 had opened five great ports to trade.[1] But as early as 1790 Maj. Samuel Shaw,[2] who had arrived at Canton in 1784 as supercargo of the ship *Empress*, was given a commission[3] as American consul at Canton by President Washington.

But Americans, as well as others, found it impracticable to live and conduct business under existing native laws, which were fundamentally different from those to which they had been accustomed. The Chinese authorities, too, found it annoying, and often embarrassing, to decide questions and dispose of cases involving the rights of foreigners, and they desired to be relieved of the whole burden.

The solution of this common difficulty was found in the adoption by China of the system known as extraterritoriality by which foreigners were accorded the same legal status as if living in their own country and the authorities of each treaty-making power were made responsible for punishing crime and administering justice among their own nationals.

There was, of course, nothing novel in the adoption of the system in China; for it had long been in vogue in other parts of the world. Indeed, there is reason to believe that it was once in vogue everywhere. An eminent authority has recently said:

> We venture to suggest, with diffidence, that the naturalness of the extraterritorial privilege as explained by the author might be more emphatically illustrated by the "personality" of all law, as distinguished from its "territoriality," which prevailed throughout the vast Carlovingian empire till nearly 1000 A. D.; that is, instead of saying, with the author, that extraterritoriality was "in accordance with usage which became generally recognized with the gradual extension of commerce," we should prefer to believe that it was in accord with a universal prior custom prevailing in the first half of the Middle Ages.[4]

For the United States this arrangement with China was effected by the treaty[5] signed at Wanghia, a suburb of Macao, on July 3, 1844. It was drafted by Caleb Cushing, afterward Attorney General of the United States, and Article XII provided that "citizens of the United States who may commit any crime in China shall be subject to be tried and punished only by the consul, or other public functionary of the United States, thereto authorized, according to the laws of the United States ";[6] and Article XXV declared that "all questions in regard to rights, whether of property or person, arising between citizens of the United States in China, shall be subject to the jurisdiction of, and regulated by the authorities of, their own Government. And all controversies occurring in China between citizens of the United States and the subjects of any other Government shall be regulated by the treaties existing between the United States and such Governments, respectively, without interference on the part of China."[7]

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[1] Williams, The Middle Kingdom, II, 567.

[2] A sketch of Maj. Shaw and an account of the voyage appears in Asia, XVII, in an article by John Ford, entitled "Outward Bound."

[3] Reprinted in American Journal of International Law, V, 426.

[4] John H. Wigmore, reviewing Brown's "Foreigners in Turkey," Illinois Law Review, X, 451.

[5] "Its fullness of details and clear exhibition of the rights conceded by the Chinese Government to foreigners dwelling within its borders made it the leading authority in settling disputes among them until 1860." Williams, The Middle Kingdom, II, 567.

ORGANIZATION.

CONSULAR COURTS.

The "authorities" to which this extensive responsibility was committed were the consuls, and, as each consul became thereby a judge, the consular courts were thus brought into existence. For more than 60 years these, as reviewed and supervised by the minister, were the only American courts in China. Their jurisdiction as to subject-matter was unlimited,[8] and questions coming before them were often of the highest importance.

In 1906, when the United States Court for China was created, the jurisdiction of the consular courts was left to be exercised "in civil cases where the sum or value of the property involved in the controversy does not exceed five hundred dollars United States money and in criminal cases where the punishment for the offense charged can not exceed by law one hundred dollars' fine or sixty days' imprisonment, or both, and shall have power to arrest, examine, and discharge accused persons or commit them to the said courts."[9]

There are now 15 American consular courts in China, and it will be seen that the jurisdiction retained by them is important, even if limited. Especially in the probate of wills and administration of estates they are the only courts to which a considerable section of Americans in China have occasion to resort.

UNITED STATES COURT.

HISTORY.

As American interests in the Far East gradually expanded it became apparent that the important and far-reaching judicial power which the Nation had acquired there should be exercised, or at least supervised, by those trained especially for that purpose. Our ministers and consuls, doubtless, made the best of a difficult situation, but they were laymen, as a rule, and it was not to be expected that they should find themselves at home in the technical field of law.

In 1881 Secretary Blaine, in an opinion which was transmitted to Congress by President Arthur, recommended that "men of legal training should be chosen for certain judicial offices independent of the consular system, and the establishment of a separate system of courts, at least in China, with an appellate court at Shanghai." Bills embodying these recommendations were introduced into Congress in 1882 and 1884 but were not acted upon. Nothing daunted, the advocates of a better system continued their efforts. In March, 1906, Congressman Edwin Denby, son of a former minister to China, introduced his bill. It passed the lower House under his guidance, received the support of Senator Spooner in the upper Chamber, and became a law.

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[6] Malloy, Treaties, etc., I, 202.

[7] Id. 203.

[8] There are several recorded cases where they granted divorces: Moore, Int. Law Dig., III, 459; North China Herald, LXIX, 1138, 1194.

[9] Act of June 30, 1906, 34 United States Stats. at Large, ch. 3934, pt. I, 814, sec. 2.

Elsewhere, Mr. Denby has said of the conception and purpose of his measure:

> I thought of our United States judge as much in the light of an ancillary, unofficial ambassador of the United States, as of a judge of a court for the trial of cases in which Americans were concerned. I had hoped at that time, judging of conditions as I had known them before, that this high judicial officer, the highest American official in the land next only to the minister, unhampered by diplomatic restrictions and with an eye single to the best interests of the Chinese Empire and of the United States, might, having placed himself on terms of friendship and confidence with the chief officials of the Empire, exercise in an entirely unofficial way a considerable influence in matters affecting foreign relations. The court's sittings were to be at the points indicated—four great vice-regal seats—and I hoped that perhaps some good might be accomplished through the influence of the court in an entirely unofficial and friendly way, relying upon the judge himself to exercise tact and discretion and to use whatever influence he might acquire in the best manner.[10]

Thus to Dean Wigmore's conception of "a judicial superintendent," elsewhere noted (p. 50), must be added that of Mr. Denby—of an "unofficial ambassador"—if we would comprehend the purposes that underlay the creation of the United States Court for China. How far these purposes have been carried out is not, of course, for those administering the court to say; but the latter can be materially assisted by their own nationals in attaining such purposes, if these are clearly understood and if all unite in seeking their achievement.

For both United States and consular courts exist in order to serve Americans in China and those who deal with them. The measure of their success is the degree of serviceability attained, and in this respect their founders anticipated and applied an ideal that is only just now being diffused by the most advanced school of law reformers in America.

While nominally established by the act of June 30, 1906, the court was not actually opened for business until early in 1907. Of the nearly 700 causes disposed of by it since then, there have some of unusual importance, either in the legal questions arising or in the amounts involved.

JURISDICTION.

A court's jurisdiction may be considered under three aspects—(1) territorial, (2) personal, and (3) topical—the last being known in technical parlance as jurisdiction of the subject matter. This third jurisdiction is again subdivided into (*a*) original, (*b*) appellate, and (in this instance) (*c*) supervisory.

The territorial jurisdiction of this United States Court extends to and its process runs throughout all Chinese territory. Sessions of the court are held almost continuously at Shanghai, and one regular term is held each year at Tientsin in the north, Hankow in central China, and Canton in the south. Special sessions are authorized at any place in China having an American consulate. The organic act also conferred jurisdiction in Korea, but while this provision has never been repealed the jurisdiction has not been exercised in recent years. Should the Government ever decide to extend the court's jurisdiction to Siam, where extraterritoriality was granted in 1856,[11] it would require no more than the addition of a couple of words to the organic act and the slight expense of a yearly session at Bangkok.

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[10] Far Eastern American Bar Association Publications, I, 14, 15.

The test of jurisdiction over the person in all these extraterritorial courts is the nationality of the defendant. Anyone may be a plaintiff, but there must be a defendant subject to American authority in order to confer jurisdiction. This includes Filipinos, of whom there are many in China, and also Porto Ricans, as well as regular American citizens, and all such in China are amenable to these courts in any cause, criminal or civil, which may be instituted therein against them. And where the cause is what is technically known as "in rem" (concerns property or status alone) it may be brought in these courts, though there is no such defendant, or even where the nominal defendant is an alien.[12] Original jurisdiction of the subject matter is exercised by the United States Court in all cases arising within its territory which are not cognizable by the consular courts—that is, in all civil cases where the amount involved *exceeds* $500 and in all criminal cases where the penalty prescribed *exceeds* "one hundred dollars fine or sixty days' imprisonment or both."[13]

It sometimes happens, especially in administration matters, that a cause is commenced in a consular court under the belief that it involves less than $500 and is afterwards found to involve more. In that event it is transferred to the United States Court and the prior proceedings are treated as having been conducted under its authority.[14] The grant of jurisdiction in "all civil cases" of the prescribed amount is an extensive one and includes proceedings of every recognized class without limit as to the maximum amount or character of relief sought. Thus while the United States Court for China is a part of the Federal judicial system, corresponding in grade mainly to the district courts, it assumes cognizance of certain causes (such as probate, divorce, and adoption) which, in America, are entertained only by the State courts. The amounts involved likewise are often very large, running into hundreds of thousands.

All judgments of the consular courts are subject to review by the United States Court for China on appeal, while from the latter, which is considered as located in the ninth judicial circuit, appeals lie to the court of appeals sitting at San Francisco.

But besides its ordinary appellate cognizance the United States Court also exercises a supervisory or administrative jurisdiction in all probate and administration causes, whether appealed or not. Thus it is provided that the consular judge "shall pay no claims against the estate without the written approval of the judge of said [United States] court, nor shall he make sale of any of the assets of said estate without first reporting the same to said judge and obtaining a written approval of said sale," etc.[15] The latter is also empowered "to require at any time reports from consuls or vice consuls in respect of all their acts and doings relating to the estate of any such deceased person."[16] The statute further provides "that the procedure of the said court shall be in accordance, so far as practicable, with the existing procedure prescribed for consular courts in China in accordance with the Revised Statutes of the United States; provided, however, that the judge of the said United States Court for China shall have authority from time to time to modify and supplement said rules of procedure."[17]

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[11] Treaty of May 29, 1856; Malloy, Treaties, etc., I, 1629.

[12] See Richards *v.* Richards, United States Court for China, No. 424, where the defendant was a Chinese woman but the object of the action was divorce without alimony—i. e., change of status only.

[13] 34 United States Stats. at Large, ch. 3934, sec. 2.

[14] In re Jaeger's Estate (April 26, 1918), No. 613, Millard's Review, IV, 374.

[15] Act of June 30, 1906, 34 United States Stats. at Large, ch. 3934, pt. 1, 814, sec. 2.

The relation between the two is, therefore, something more than that usually existing between appellate and "nisi prius" courts. What Congress apparently intended by this, particularly as regards probate and administration matters, was the creation of an office resembling the "chief judicial superintendent" of the up-to-date law reformers, who is invested, among other things, with the rule-making function.

John H. Wigmore, a leader of advanced legal thought in America, expresses[18] this conception as follows:

> What we preach is a chief judicial superintendent, who shall have the power and the duty to inquire into each and every sort of botch-product of our justice-system, and to take measures to improve it against the recurrence of such failures. When the people bring themselves to permitting and demanding such an innovation, they will be in a fair way of getting substantial improvements in their justice—but not before then.

JURISPRUDENCE AND LEGISLATION.

"LAWS OF THE UNITED STATES."

The treaty cession to the American Government of extraterritorial jurisdiction from China was first rendered effective by the act of Congress of August 11, 1848, which contained the following provision:

> Such jurisdiction in criminal and civil matters shall, in all cases, be exercised and enforced in conformity with the *laws of the United States*, which are hereby, so far as is necessary to execute said treaty, extended over all citizens of the United States in China (and over all others to the extent that the terms of the treaty justify or require), so far as such laws are suitable to carry said treaty into effect.[19]

In 1860 a more elaborate act[20] was passed in which the foregoing section was almost literally repeated, so that it affords the basis of American jurisprudence in China.

The practice of extending over one jurisdiction laws originally passed for another is not new in American jurisprudence. It was often resorted to during the formative period of western America when new territories were created. Thus the laws of Iowa were extended over the newly formed territory of Nebraska in 1855, while a generation later the Nebraska laws were extended to Oklahoma, organized in 1889. Meanwhile, in 1884, the laws of Oregon had been extended over Alaska.[21]

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[16] Id.

[17] Id., sec. 5.

[18] Illinois Law Review, XI, 49.

[19] 9 United States Stats. at Large, 276, sec. 4.

[20] 12 United States Stats. at Large, 73, sec. 4.

[21] United States ex rel. Raven v. McRae, United States Court for China, No. 586, Millard's Review, I, 7.

It is said[22] also that the laws of Arkansas were once extended over the Indian Territory.

> Congress had applied the same principle as early as 1825, when it extended the criminal laws of each State over all Federal territory and property within its boundaries,[23] thus making a violation of such State law "an offense against the United States."[24] Congress was merely following precedent, therefore, in enacting the laws above noticed.[25]

"What are 'the laws of the United States' referred to so frequently in these quotations?" is the question sought to be answered as follows in one[26] of the earliest cases presented to the writer after he had assumed charge of the court:

> Not the treaties, for they are mentioned separately; hardly the Constitution, for it has been declared[27] to have no extraterritorial operation; certainly not State legislation; principally, therefore, the acts of Congress then or subsequently in force. And their extension results quite independently of the original purpose of the acts themselves. Thus Congress may enact a law for a limited area under its exclusive jurisdiction, such as Alaska or the District of Columbia; by its terms it may have no force whatever outside of such area; but if it is "necessary to execute such treaties" (with China) and "suitable to carry the same into effect" it becomes operative here by virtue of the act of 1860 above quoted. Such we understand to be the doctrine announced by the Court of Appeals in a leading case.

This last[28] was a prosecution for obtaining money under false pretenses, and in upholding the lower court's jurisdiction of such a crime the appelate tribunal observed:

> It is true, there is no general statute applicable to every State in the Union, making this an offense against the United States; nor could there be, in view of the fact that under our system of government the right to punish for such acts committed within the political jurisdiction of the State is reserved to the several States. But in legislating for territory over which the United States exercises exclusive legislative jurisdiction, Congress has made the act of obtaining money under false pretenses a crime. * * *
>
> In view of the legislation of Congress to which we have referred (the acts relating to Alaska and the District of Columbia, and the statute of July 7, 1898), our conclusion is that obtaining money or goods under false pretenses is an offense against the laws of the United States within the meaning of the statute conferring jurisdiction upon the United States Court for China.[29]

Though the laws there involved were criminal ones, the fundamental basis of the decision applies equally well to civil laws which have since been treated by the United States Court for China[30] as extended here.

> For there can be no half-way adoption of that doctrine; it includes all such laws or none. It can not logically be restricted to any particular class of acts. It is just as applicable to civil laws as to criminal; just as necessary in respect to corporations as to procedure.[31]

It is true that the phrase "law of the United States" as used in one paragraph of that section of the Judicial Code[32] relating to appeals has been construed as not including an act of Congress for the District of Columbia.[33] But the "ratio decidendi" was the declared purpose of the paragraph to limit appeals,[34] and it was conceded that the same phrase in another paragraph might be construed differently.[35] In fact, it had been so construed in an earlier case[36] which was not overruled by those above cited. Moreover, in a decision later than any of them the Supreme Court in construing a similar statute[37] regulating appeals from the Philippines declared the Philippine Tariff Act, which applied to the archipelago alone, "a statute of the United States."[38] The doctrine of the Court of Appeals would seem, therefore, to be quite consistent with that of the Supreme Court.

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[22] Hearing before Committee on Foreign Affairs, Sept. 27, 1917; H. R. 4281, p. 6.

[23] 4 United States Stats. at Large, ch. LXV, sec. 3.

[24] Biddle *v.* United States, 156 Fed. 759, 763.

[25] United States ex rel. Raven *v.* McRae, Millard's Review, I, 7.

[26] United States *v.* Allen, United States Court for China, No. 89.

[27] In *re* Ross, 140 United States, 433, 35 Law. Ed. 581.

[28] Biddle *v.* United States, 156 Fed. Rep. 759.

[29] Biddle *v.* United States, 156 Fed. Rep. 759.

[30] Cavanaugh *v.* Worden, No. 313.

[31] United States ex rel. Raven *v.* McRae, No. 586, Millard's Review, I, 9.

[32] Sec. 250; 36 United States Stats. at Large, 1159.

It appears to be settled, then, that the phrase "laws of the United States" as used in the legislation first above quoted includes all applicable acts of Congress regardless of the locality for which they were intended originally. This rule provides for American courts in China a mass of legislation without which they would be sadly handicapped; for the general acts of Congress contain little concerning the subjects with which those courts are most called upon to deal, such as crimes, domestic relations, contracts, etc. It happened, however, that, shortly before the establishment of the United States Court for China, Congress had enacted for various jurisdictions a series of fairly satisfactory codes and statutes, which covered these and kindred subjects and which, by the rule above stated, were rendered available to said courts.[39] Where two or more of such acts cover the same subject and are *equally suitable*, a rule of statutory construction as old as the Twelve Tables[40] requires that the latest enactment be applied. Moreover, although Alaska was provided in 1913 with a legislature of its own, Congress will doubtless continue to legislate indefinitely for the District of Columbia, and a fair supply of new legislation may be expected from that source. The statutory equipment of American courts in China is, therefore, on the whole, about as complete as that of most courts.

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[33] American Security, etc., Co. *v.* District of Columbia, 234 United States, 491, 56 Law. Ed., 856, 32 Sup. Ct., 553; Washington, etc., R. Co. *v.* Downey, 236 United States, 190, 59 Law. Ed., 533, 35 Sup. Ct., 406; American Surety Co. *v.* American Fruit Product Co., 238 United States, 140, 59 Law. Ed., 1238; 35 Sup. Ct., 828; American Security, etc., Co. *v.* Rudolph, 38 App. Cas. (D. C.), 32.

[34] American Security, etc., Co. *v.* District of Columbia, 224 United States, 491, 56 Law. Ed., 856, 82 Sup. Ct., 553.

[35] "Of course there is no doubt that the special act of Congress was in one sense a law of the United States. It well may be that it would fall within the meaning of the same words in the third clause of the same section: 'Cases involving the constitutionality of any law of the United States.'" Id. Cf. American Surety Co. *v.* American Fruit Product Co., 238 United States, 140, 59 Law. Ed., 533, 35 Sup. Ct., 406.

[36] Parsons *v.* District of Columbia, 170 United States, 45, Law. Ed.

[37] 36 United States Stats. at Large, ch. 1369, sec. 10.

[38] Gsell *v.* Insular Collector, 239 United States, 93, affirming 24 Philippine, 369, which in turn affirmed the decision of Lobingier J., in Philippine Law Rev., 229–233.

[39] Act of March 3, 1899, 30 United States Stats. at Large, 1253 et seq. (Criminal Code for Alaska); Act of June 6, 1900, 31 United States Stats. at Large, ch. 786 (Civil Laws for Alaska); Act of March 3, 1901, 31 United States Stats. at Large, ch. 854 (General Code for the District of Columbia); Act of July 1, 1902, 32 United States Stats. at Large, ch. 1369 (Organic Act for the Philippines but, with its successor, containing provisions which may prove useful in China). This was supplemented though not entirely repealed by the act of August 29, 1916, 39 United States Stats. at Large, ch. 416.

[40] XII, 5; 36 Cyc. 1130; Cavanaugh *v.* Worden, No. 313.

UNWRITTEN LAW.

In any jurisdiction there are, of course, many subjects not covered by legislation and these "lacunæ" were early provided for in extraterritorial countries by enacting that "in all cases where such laws are not adapted to the object, or are deficient in the provisions necessary to furnish suitable remedies, the common law, including equity and admiralty, shall be extended in like manner over such citizens and others in the said countries."[41] The "common law" here specified has been "interpreted to mean those principles of the common law of England and those statutes passed in aid thereof, including the law administered in the equity, admiralty, and ecclesiastical tribunals, which were adapted to the situation and circumstances of the American colonies at the date of the transfer of sovereignty, as modified, applied, and developed generally by the decisions of the State courts and by the decisions of the United States courts, and incorporated generally into the statutes and constitutions of the States."[42]

THE RULE-MAKING AUTHORITY.

Finally, as supplementing all of the above, the act of 1860, following closely upon that of 1848, further provided that "if defects still remain to be supplied, and neither the common law, including equity and admiralty, nor the statutes of the United States, furnish appropriate and suitable remedies, the ministers in the said countries, respectively, shall, by decrees and regulations which shall have the force of law, supply such defects and deficiencies."[43]

In exercise of this authority the minister to China, prior to 1906, promulgated various "Consular Court Regulations,"[44] and these, though recognized in part as "gravely defective," have been given force in China even over acts of Congress.[45]

A communication to the Minister from the Department of State in 1917 announces "that the Department is clearly of the opinion that section 5 of the act of June 30, 1906,[46] should be construed as effecting a transfer of the authority to modify and supplement existing rules of procedure from the Minister to the United States Court for China."

Here, then, we have the "judicial superintendent," in fact if not in name, with not only "the power and duty to inquire into each and every" important act of the primary courts and to require reports from them but also to frame the rules by which all these courts shall operate. When it is remembered that American jurisprudence in China is a new field, and that these "rules of procedure" may be made to cover nearly the whole subject of remedial law, it will be seen that the possibilities involved in this idea of superintendency are very extensive.

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[41] Act of Congress of June 22, 1860, 12 United States Stats. at Large, p. 73, ch. 179, sec. 4.

[42] United States *v.* Biddle (United States Court for China), American Journal of International Law, I, 793, 796, reversed on another point, 156 Fed. 759.

[43] 12 United States Stats. at Large, Ch. 179, sec. 4.

[44] Reprinted in Hinckley, American Consular Jurisdiction in the Orient. pp. 226–236.

[45] United States *v.* Engelbracht (United States Court for China, Oct. 25, 1909), American Journal of International Law, III, 735.

[46] See ante, p. 48.

Acting under this authority the writer has already promulgated rules for admission to practice in all of these courts[47] and has sent out, for comment and suggestion before promulgation, a draft of proposed rules of evidence[48] which aim to cover in brief space the whole field of that subject. So far as the growing business of the court will permit, it is the writer's intention to follow these with successive drafts of rules on various procedural subjects until the whole field of remedial law is completed. The full realization of that plan may have to be deferred for some time, but it will be pursued as steadily as conditions allow; for the opportunity is unique and the task inviting.

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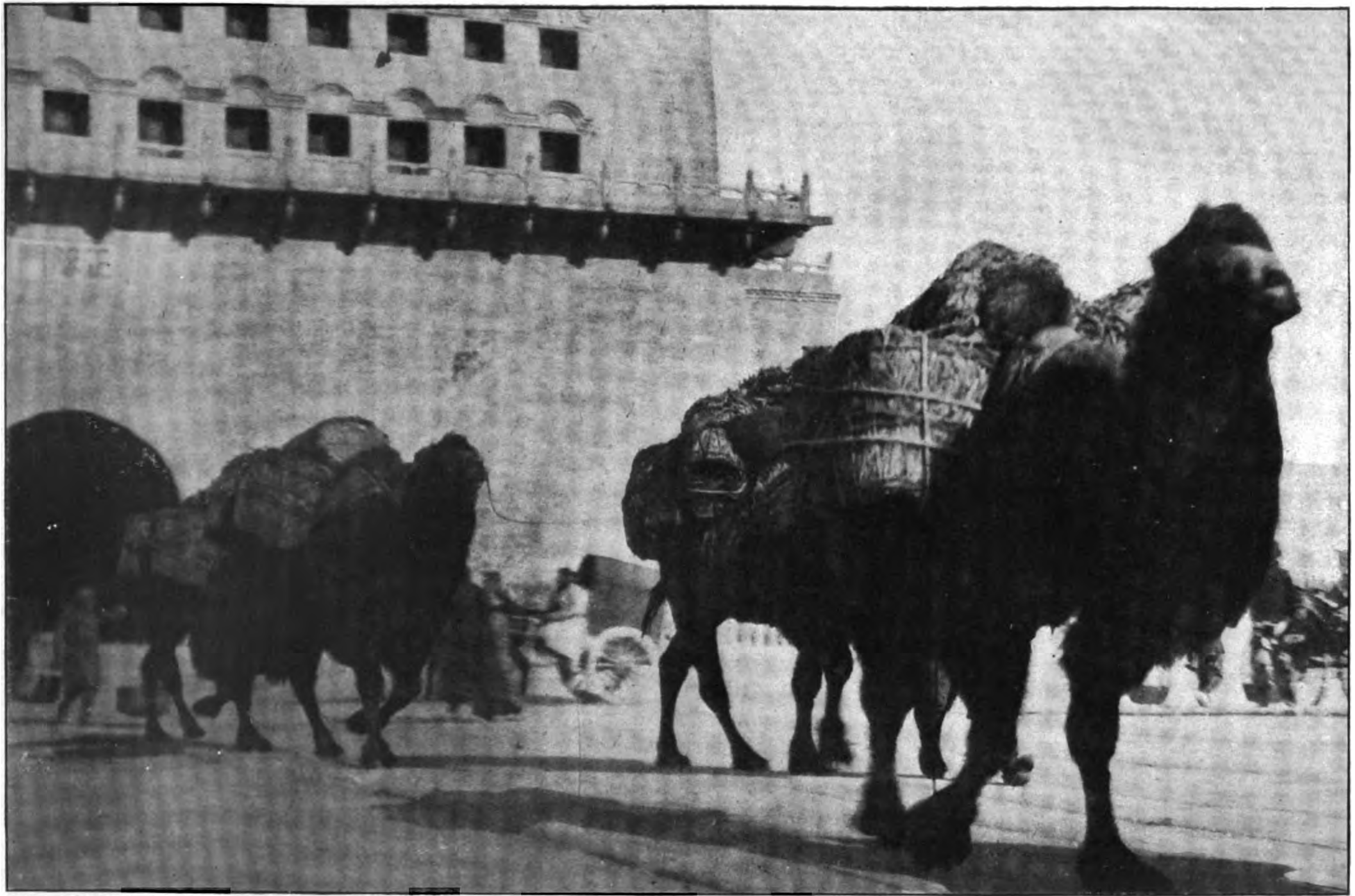
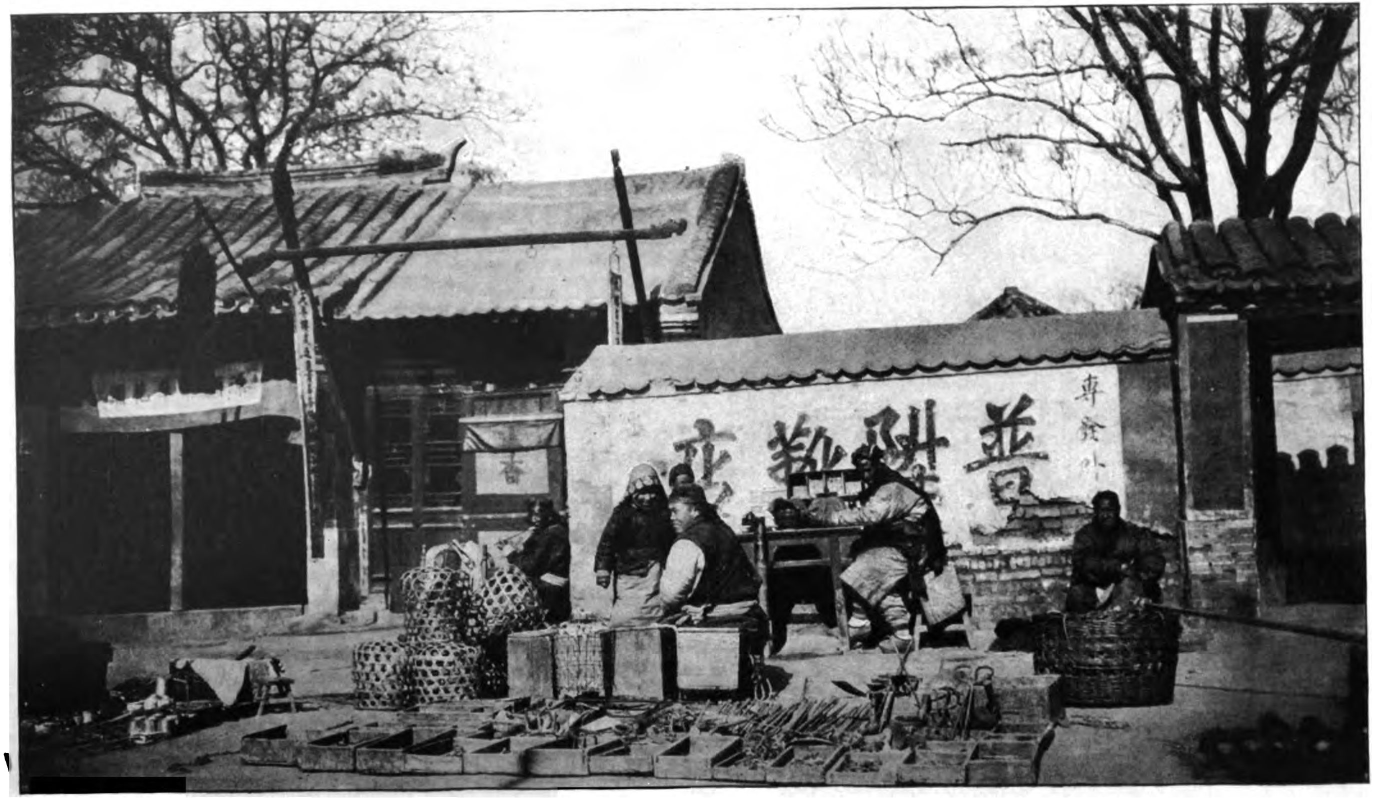
[47] Millard's Review, IV, 68.

[48] Id., I, 164–168 192–196; American Bar Association Journal, IV, 218, 242.



Photograph by International Film Service; courtesy of "Asia."

FIG. 2.—CAMELS IN PEKING.



Courtesy of "Asia."

FIG. 3.—MARKET IN PEKING.

THE AMERICAN CONSULATE AND ITS RELATION TO THE PUBLIC.

By Walter A. Adams, Vice Consul at Shanghai.

NUMBER OF CONSULAR DISTRICTS IN CHINA.

There are 15 American consulates general and consulates in China (not including the consulate general at Hongkong and the consulates at Dairen and Tsingtau). Each one has consular jurisdiction over a certain territory arranged so that the 15 districts include all of China. The cities in which the consular establishments are located are as follows:

Consulates General.—Canton, Hankow, Mukden, Shanghai, Tientsin.

Consulates.—Amoy, Antung, Changsha, Chefoo, Chungking, Foochow, Harbin, Nanking, Swatow, Tsinanfu.

A vice consul has been assigned to Peking under the jurisdiction of the consulate general at Tientsin.

GRADE AND STATUS OF CONSULAR OFFICERS.

Consuls general have no supervisory powers over other consulates in China, and their powers and duties are coextensive with those of consuls. The distinction between the titles of "consul general" and "consul" in China is merely one of official rank. In other countries the consul general often has supervisory jurisdiction over consulates within a given territory. Vice consuls are subordinate consular officers who assume charge of consulates general or consulates by specific designation during the absence of the principal consular officers.

As indicated in previous chapters, consular officers in China exercise, under treaty rights, a limited jurisdiction over American citizens within their districts and have a certain representative capacity which in most countries such officers do not possess. Their duties are, as a consequence, much more varied and extensive than those of consuls in countries where extraterritoriality does not exist.

PROTECTION OF AMERICAN INTERESTS.

American consular officers in China, like those in all other countries, are charged with the duty of extending proper protection to all American interests. Among the particular instances in which such functions are exercised in China, one may mention the obligation to protect the persons and work of American missionaries who are stationed throughout the Republic and are engaged in religious, educational, and medical activities among the Chinese.

The assistance rendered to American mercantile interests occupies a very important place in the work of consular officers in China, involving the securing of various import permits, negotiations with local Chinese officials regarding matters of dispute, and the assurance to American interests of every privilege extended to the mercantile interests of other nations under treaty rights or usage.

FUNCTIONS IN CONNECTION WITH MERCANTILE MARINE.

Consular officers are required to ship, discharge, and, under certain circumstances, maintain and send American seamen to the United States; to settle disputes between masters and seamen of American vessels; to render assistance in the case of wrecked or stranded American vessels; to receive the papers of American vessels arriving at foreign ports and deliver them after the discharge of the obligations of the vessels toward the members of their crews and upon the production of clearance from the proper foreign port officials; and to issue to vessels clearing for the United States or its possessions bills of health describing the condition of the ports, vessels, crews, passengers, and cargoes.

CERTIFICATION OF INVOICES.

All shipments to the United States or its possessions of merchandise when the value thereof amounts to one hundred dollars or more United States currency (except in the case of personal effects accompanying a passenger) must be covered by invoices certified by the American consular officers at the ports where the shipments begin their journeys to the United States. These invoices serve to keep the United States customs officials informed regarding the current wholesale market prices of the merchandise covered thereby in the principal markets of the country of exportation. Consular invoice forms may be obtained by application to any American consulate.

DISINFECTION.

American consular officers supervise, either personally or through agents, the disinfection of merchandise, including personal and household effects, when disinfection is necessary, and issue certificates of disinfection or noninfection. These certificates are issued in quadruplicate and are attached to consular invoices.

PASSPORTS AND REGISTRATION.

Consular officers are required to visé and, when so authorized, to amend, extend, and issue passports, as well as to register American citizens and record the birth of children of American citizens. When applying for passports or registration, applicants should present documentary evidence of citizenship. The nationality of a married woman is, as a general rule, dependent upon that of her husband and she should present evidence of his citizenship in addition to evidence of marriage.

"SECTION VI CERTIFICATES."

Chinese citizens of exempt classes who contemplate visiting the United States secure from the Chinese Foreign Office documents called "Section VI certificates." Such a certificate is viséed by the American consular officer at the port of embarkation. Application for visé should be made as far in advance of the date of sailing as practicable, in order to allow the consular officer ample time for the investigation of the case.

Chinese students would greatly facilitate action upon their applications for visés by providing themselves, prior to such application, with documentary evidence of school attendance and of financial ability to maintain themselves while in the United States.

NOTARIAL FUNCTIONS.

Consular officers take depositions and acknowledgments of the execution of contracts, powers of attorney, deeds, and mortgages, and perform such other acts as notaries public in the United States are authorized or required to perform.

In addition to such strictly notarial functions, consular officers record contracts, deeds, and mortgages, and other documents for the purpose of furnishing permanent records.

MARRIAGES.

American consular officers officially witness marriages, where one or both of the parties is American, and issue marriage certificates. Copies of these certificates are forwarded to Washington, D. C., and there filed. Marriages in the presence of consular officers of the United States in foreign countries, between persons who would be authorized to marry if residing in the District of Columbia, are valid to all intents and purposes and have the same effect as if solemnized within the District of Columbia if performed in accordance with the local law of the place wherein the marriage is solemnized.

DEATHS.

American consuls are charged with the duty of reporting deaths of American citizens who die within the consular district; they are required to furnish particulars regarding such deaths and the effects left by the deceased.

JURISDICTION OVER ESTATES.

American consular officers in China have jurisdiction (under the supervision of the United States Court for China) over the estates in China of deceased American citizens where the total value of the estate is not in excess of $500 United States currency.

The difficulty and delay in administering estates is greatly reduced where the deceased has left a will describing his assets, naming his devisees and legatees, and nominating an executor or executrix. A testator leaves his estate in a much more orderly condition as regards its administration, other things being equal, than a person dying intestate.

The functions of consular courts have been described in the chapter immediately preceding this, by Judge Lobingier, of the United States Court for China.

REGISTRATION OF TITLE DEEDS.

Land in China belonging to American citizens or corporations may be registered at American consulates, which act, in a general way, as clearing houses for correspondence between the American possessors of land and other land officers, including Chinese, regarding transfers of land, disputes, the drawing up and approval of plans, and the payment of fees.

PATENTS, COPYRIGHTS, AND TRADE-MARKS.

American citizens, firms, or corporations may, under the treaty of 1903 between the United States and China, apply through American consulates in China to the Chinese authorities for provisional registration of trade-marks and copyrights and the protection of patents. American interests should by all means avail themselves of this privilege so as to minimize the danger of infringement of their trade-marks, copyrights, and patents.

COMMERCIAL REPORTS AND REPLIES TO INQUIRIES.

The practice of American consular officers is to report to the authorities in the United States, for the benefit of American trade, regarding all significant commercial movements and available opportunities for the introduction of American products in their districts.

A very important part of the duties of consular officers consists in replying, after suitable investigation, to inquiries made by American manufacturers and exporters regarding foreign-market conditions, trade opportunities, methods of packing and shipping merchandise, etc.

The consuls also make reports on sanitation, labor conditions, crops, irrigation, postal conventions, parcel-post facilities, and numerous other subjects.

OTHER ASSISTANCE TO AMERICAN INTERESTS.

American consular officers in China are called upon to render various sorts of miscellaneous assistance to American interests, such as placing American exporters in touch with local merchants acting as intermediaries in matters of dispute between American business interests and local Chinese authorities, and rendering any other proper aid within their facilities.

The Consular Service gathers information for the several executive departments of the United States Government and often performs acts for American services abroad, even acting as agents (e. g., for the Shipping Board).

Consular officers have duties in connection with immigration and the preservation of the public health. They gather information concerning foreign legislation and administrative methods. Other duties have to do with the welfare and whereabouts of Americans abroad; the beneficiaries of war-risk insurance allotments; the information and forms necessary in connection with income taxes; and a variety of other acts and questions.

TARIFF OF CONSULAR FEES.

The following is the tariff of fees prescribed by order of the President to be charged by consular officers of the United States. All consular charges must be in strict accordance with this tariff and be collected in gold or its equivalent. No fee or compensation will be collected for any service not covered by this tariff.

Consular fees are not personal to the consuls but revert to the Treasury of the United States.

(The fees in this tariff are not prescribed for American vessels and seamen, because they are exempted by law from the payment of consular fees. Consular agents will make the fees in this tariff a basis of collection from the Treasury for services to such vessels. Foreign-built vessels, unregistered, owned by American citizens, are not exempt from the payment of the fees prescribed herein.)

Nature of service.	Fee.
MISCELLANEOUS SERVICES.	
1. Certificate to invoice, including declaration, in triplicate or quadruplicate, covering either importations or transit shipments, including any additional declaration or certificate not otherwise provided for which is required by law or regulations for use in connection with the entry of the wares or the forwarding of the same in bond	$2.50
2. Invoice of returned American goods	1.00
3. Extra certificates and declarations as above described, including immigrant's oath (Form No. 128) or declaration for books and household effects under $100 in value when issued without an invoice certificate, each	1.00
4. Certificate to extra copies of invoices, each	1.00
5. Certificate of disinfection, in triplicate or quadruplicate	2.50
6. Landing certificate, including oaths of master and mate, and the complete execution of the certificate	2.50
7. Sealing cars coming from Canada or Mexico, for each manifest in quintuplicate with the consul's certificate including sealing of each car, vessel, bale, barrel, box, or package	1.00
8. Issuing a passport—Form No. 9	1.00
(No fee shall be collected for extending a passport.)	
9. Verifying an American passport (Form No. 10)	No fee
or visaing each foreign passport (not including passports or documents in the nature of passports, held by (1) any persons who are officials or officers of any Government, its armed forces, or of any State, district, or municipality thereof, traveling to or through the United States on either official or personal business, or (2) soldiers coming within the terms of Public Resolution No. 44, 65th Congress, H. J. Res. 331	1.00
Preparing visa declaration and administering oath	1.00
Certifying to a copy of a visa declaration previously taken	1.00
10. Visaing a Chinese passport or certificate	1.00
11. Marriage certificate, in duplicate, Form No. 87	1.00
12. For taking into possession the personal estate of any citizen who shall die within the limits of a consulate, inventorying, selling, and finally settling and preparing or transmitting, according to law, the balance due thereon, $2 for each $100 of value or fraction thereof. If part of such estate shall be delivered over before final settlement, $1 for each $100 of value or fraction thereof to be charged on the part so delivered over as is not in money, and $2 for each $100 of value or fraction thereof on the gross amount of the residue. If among the effects of the deceased are found certificates of foreign stock, loans, or other property $1 for each $100 of value or fraction thereof on the amount thereof. No charge will be made for placing the official seal upon the personal propery or effects of such deceased citizen, or for breaking or removing the seals.	
13. For each certificate of protection, semsar, or certificate of employment issued at Tangier	$2.00
SERVICES TO VESSELS AND SEAMEN.	
14. Bill of health, in duplicate[1]	5.00
15. Supplemental bill of health, in duplicate[1]	2.50
16. For receiving and delivering ship's register and papers, including consular certificates, as prescribed in Forms Nos. 13 and 14, $1 for each 100 tons or fraction thereof, registered measurement (net), of the vessel for which the service is performed, if under 1,000 tons; but for American vessels running regularly by weekly or monthly trips, or otherwise, to or between foreign ports, this tonnage fee will not be charged for more than four trips in a year; and tonnage fees shall not be exacted for any vessel touching at or near ports in Canada on her regular voyage from one port to another within the United States, unless some official service required by law shall be performed.	
17. And for every additional 100 tons net or fraction thereof	.50
18. Shipping or discharging seamen, including the certificates thereof attached to crew list and shipping articles and given to seamen	2.00
19. Authentication of copies of protests or other necessary documents for vessels or seamen not otherwise provided for.	
20. Preparation and acknowledgment for vessels or seamen of any oath or declaration for which a form is given in the Consular Regulations, or a similar necessary service not otherwise provided for	2.00
21. Preparation and execution for vessels or seamen of any certificate for which a form is given in the Consular Regulations, or similar necessary service not otherwise provided for	2.00
22. Orders or letters for vessels or seamen for which forms are given in the Consular Regulations, or other similar necessary service not otherwise provided for	2.00

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[1] Foreign war vessels are exempt from the payment of fees for bills of health.

Nature of service.	Fee.
SERVICES TO VESSELS AND SEAMEN—con.	
23. Recording, when necessary, for vessels or seamen any document covered by the provisions of the Consular Regulations, for every 100 words or fraction thereof	$0.50
24. Noting marine protest—Form No. 37	2.00
25. Extending marine protest—Form No. 38	3.00
If it exceed 200 words, for every additional 100 words	.50
26. Protest of master against charterers or freighters—Form No. 39	2.00
27. Clearance when issued by the consul, as at free ports	2.00
28. Attending an appraisement of vessel's goods or effects, for each day's attendance	5.00
29. Attending sale of vessel's goods, for each day's attendance during which the sale continues	5.00
30. Attendance at a shipwreck, or for the purpose of assisting a ship in distress, or of saving wrecked goods or property, over and above traveling expenses, whenever the consul's interposition is required by the parties interested, for each day	5.00
NOTARIAL AND OTHER SERVICES.	
31. Administering an oath and certificate thereof[1]	2.00
32. Administering oath and preparing passport application	1.00
33. Acknowledgment of a deed or power of attorney, or similar service, including one or more signatures, with certificate thereof, for each copy	2.00
34. Administering any and all oaths required to be made by pensioners and their witnesses in the execution of their pension vouchers, or by persons presenting claims for pensions or increase of pensions, or claims for insurance or insurance allowances or allotments or certifying to the competency of a local official before whom said papers were executed, or for other services in relation thereto	No fee.
35. Acknowledgments connected with the transfer of United States bonds	No fee.
36. Administering oaths to or taking acknowledgments of officials or employees of the United States Government, in connection with their official business or accounts	No fee.
37. For rendering notarial services to officials of foreign Governments who render gratuitously reciprocal courtesies to American diplomatic and consular officers	No fee.
38. Certifying to official character of a foreign notary or other official	2.00
SERVICES TO VESSELS AND SEAMEN—con.	
39. For taking depositions, executing commissions or letters rogatory, where the record of testimony including caption and certificate, does not exceed 500 words	$10.00
For each additional 100 words or fraction thereof	.50
The foregoing fee shall cover the administration of the oath and all services of the consul as commissioner, but shall not include services of clerk, stenographer, or typewriter, which shall be additional at the rate prescribed herein for copying.	
40. Copies (carbon copies to be charged for at the same rate as originals):	
For the first 100 words or fraction	.50
For every additional 100 words or less	.25
41. Translations; for every 100 words or fraction	1.00
42. Additional fee for all services contemplated by fees numbered 31, 32, 33, 38, 39, when rendered elsewhere than at the consular office at the request of the interested parties, for each hour or fraction thereof	1.00
In connection with any service rendered outside of the consular office at the request of private individuals, the exact amount of the expenses actually and necessarily incurred by the person rendering the service shall be collected from the persons for whom the service is performed in addition to the fee or fees prescribed therefor, and a note of the amount shall be made on the margin of the fee book and fee return opposite the entry of the service and fee; but no amount in excess of the fee or fees prescribed and such actual and necessary expenses shall be charged or accepted.	
43. Recording unofficial documents in consulate upon request:	
For the first 100 words or fraction	.50
For every additional 100 words or less	.25
44. Any and all services indicated in the above tariff and performed upon written orders of the Department of State for the official use of the Government of the United States	No fee.
45. Any and all services in connection with the execution of income-tax returns	No fee.
46. License for the practice of pharmacy and the sale of poisons in the consular districts of the United States in China	2.00
47. Certificate of Registration	1.00

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[1] Executive order of Dec. 21, 1906, prescribes that no fee shall be charged for the affidavit of temporary stay of owner of sealskin garment entering the United States from Canada.

NOTE.—Consular officers must require all fees to be paid in advance and before the stamps are canceled, except in case of attendance out of office or of commissions, when the amount can not be determined until the service is performed. Advance deposits to cover fees in such latter cases may be accepted, but in no other cases.

Executive order of March 29, 1918, prescribes that during the continuance of the war and until further orders, any services which American consular officers shall be called upon to perform under items 12, 31, 33, 38, 39, 40, 41, 42, and 43 of the Tariff of United States Consular Fees for any person in the military or naval service of the United States, shall be rendered free of charge.

TRADE-MARKS, PATENTS, AND COPYRIGHTS IN CHINA.

INTRODUCTION.

It is necessary for the American manufacturer who contemplates the introduction of his articles in the Chinese market to safeguard his trade-mark from imitative use by those who would take advantage of the recognized quality that his product possesses in order to extend their trade in an inferior article which eventually is certain to damage the reputation of his product and decrease its sale possibilities, as well as encourage the imitation of other articles of American manufacture.

Unfortunately, many American manufacturers do not appreciate the necessity of vigilance in connection with the safeguarding of the trade-marks covering their goods. They fail to take cognizance of the fact that the ordinary Chinese does not read or write English, that he becomes familiar with the trade-mark in its general. rather than its detailed, features, and that he is therefore easily misled by imitations, though such imitations may carry somewhat different descriptive matter and vary somewhat in English names. Trade-marks and chops have much significance to the Chinese buyer, and once he has satisfied himself that goods bearing a certain trade-mark or chop are of a quality commensurate with the price asked, he will continue to purchase those goods and a certain amount of business is thereby assured.

The first essential, then, is that the trade-mark be something distinctive—a design that can be easily differentiated from other trade-marks. A picture mark is far more effective than a word, monogram, or phrase mark. It is well to have the trade name worked into the trade-mark; this makes successful imitation more difficult and also assists in securing action against would-be imitators. The designation "Made in the United States" should be placed in close proximity to the trade-mark, as this helps also in the prosecution of imitators, who are generally non-American, so far as the China market is concerned. He should register his product both in Japan and China. If he has entrusted its sale to others—that is, if he has not his own organization in the field—he should instruct his agency or representatives to safeguard his trade-mark from imitation and should allow certain liberties to the agency or representatives in the expenditure of attorney's fees for the prosecution of those placing goods under imitation trade-marks on the market. There are now American products in China that have extensive sales, whose trade-marks are imitated on inferior articles, while the agencies are unable to secure any authorization from the American manufacturers to institute proceedings against the concerns that have placed the imitation goods on the market. Unless action is taken in these cases, it will not be long before the imitation articles entirely replace the genuine American products.

Mr. John V. A. MacMurray, chargé d'affaires, American Legation, Peking, treats of this subject in its legal and diplomatic phases as follows:

The whole question of trade-marks, patents, and copyrights in China is in a very unsatisfactory state, inasmuch as no regulations for their registration have ever been adopted by the Chinese Government that have proved satisfactory to the foreign Powers which by treaty have an interest in these matters.

COPYRIGHTS.

The question of copyrights for American publications is, moreover, particularly unsatisfactory by reason of the fact that (by Article XI of the commercial treaty of 1903 between the United States and China) such copyright is available only for works prepared especially for the use and education of the Chinese people. Under the existing state of affairs, therefore, such publications alone are entitled to copyright; and persons interested in them should consult the American Legation at Peking in order to have due steps taken to obtain the recognition and protection of their rights therein.

PATENTS AND TRADE-MARKS: PROVISIONAL REGISTRATION AND PROCLAMATION.

The commercial treaties concluded between China and Great Britain in 1902, and the United States and Japan in 1903, contemplated arrangements for the due registration and protection of patents and trade-marks. But the successive sets of regulations drawn up by the Chinese Government and submitted for the approval of the Diplomatic body, representing the treaty Powers, have hitherto proved in all cases inacceptable, by reason of their insistence upon the principle that priority of registration should give a right of protection superior to that acquired by priority of use in the China market—a principle which too obviously lends itself to the legitimizing of piracies. The result is that the regulations of which the establishment was contemplated by those treaties have never been adopted; and the present practice is to obtain through the consulate general at Shanghai a provisional registration[1] with the Maritime Customs there and the issuance by the local authorities of a proclamation forbidding infringements, or the dealing in infringements, by persons under Chinese jurisdiction. While it has been successfully maintained that such provisional registration and proclamation so far fulfill the stipulations of the treaties as to entitle trade-marks so dealt with to Chinese protection against Chinese infringement by those who have not fulfilled these conditions, the system is of course unsatisfactory in that it is equally available for legitimate trade-marks and for unconscious or fraudulent infringements; and the legal effect of the provisional registration has, furthermore, never been determined. The protection afforded by proclamation is also locally restricted. But although the present system is, on the face of it, inadequate, it works, in reality, far more satisfactorily than would be expected, by reason of the disposition of the Chinese authorities to afford equitable treatment to foreign trade-marks in spite of the deficiencies of the existing Chinese law.

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[1] EDITOR'S NOTE.—A cablegram of June 27, 1919, has been received from Consul General Thomas Sammons, Shanghai, stating that from August 1 the Chinese Customs will charge a fee for the provisional registration of trade-marks and patents. From that date a remittance of $7.50 Mex. must accompany applications from foreign countries. There is no change in the filing procedure.

In this connection, reference should be made to the pamphlet issued by the United States Patent Office in 1909 entitled "Protection Extended to Patents, Designs, Trade-marks, and Copyrights in China, Japan, and Korea." The principal danger to American trade-marks in China has in fact proved, in the experience of the Legation, to be due not to persons under Chinese jurisdiction but to those doing business in China under the extraterritorial jurisdiction exercised by the consular courts of their own nationality.

TREATIES BETWEEN FOREIGN POWERS.

It was with a view to meeting this danger—against which the Chinese authorities are not competent to afford protection—that beginning with 1905 the various Powers diplomatically represented at Peking entered upon a series of arrangements with each other for the protection of trade-marks and other industrial property through the intervention of their respective consular courts, administering extraterritorial jurisdiction over their nationals, to restrain and punish in accordance with their own national laws those who might be guilty of infringing such rights accruing to the citizens or subjects of the other contracting powers. The Government of the United States is itself a party to such agreements, effected by exchange of notes, with the following nations: Great Britain, June 28, 1905; Germany, December 5, 1905; France, October 6, 1905; Italy, December 18, 1905; Russia, June 28, 1906; Denmark, June 12, 1907; Belgium, November 25, 1905; Netherlands, October 23, 1905; Sweden, March 7, 1903. With the Government of Japan, this matter was arranged by a convention under date of May 19. 1908, providing for the reciprocal protection of inventions, copyrights, trade-marks, etc., in China. The text of this treaty, which went into effect on August 16, 1908, is as follows:

ARTICLE I. Inventions, designs, and trade-marks duly patented or registered by citizens or subjects of one high contracting party in the appropriate office of the other contracting party shall have in all parts of China the same protection against infringement by citizens or subjects of such other contracting party as in the dominions and possessions of such other contracting party.

ART. II. The citizens or subjects of each of the two high contracting parties shall enjoy in China the protection of copyright for their works of literature and art, as well as photographs, to the same extent as they are protected in the dominions and possessions of the other party.

ART. III. In case of infringement in China by a citizen or subject of one of the two high contracting parties of any invention, design, trade-mark, or copyright entitled to protection in virtue of this convention, the aggrieved party shall have in the competent territorial or consular courts of such contracting party the same rights and remedies as citizens or subject of such contracting party.

ART. IV. Each high contracting party engages to extend to the citizens or subjects of the other contracting party the same treatment in China in the matter of protection of their commercial names as they enjoy in the dominions or possessions of such contracting party under the convention for the protection of industrial property signed at Paris March 20, 1883. "Hong" marks shall be considered to be commercial names for the purpose of this convention.

ART. V. Citizens of possessions belonging to the United States and subjects of Korea shall have in China the same treatment under the present convention as citizens of the United States and subjects of Japan, respectively.

ART. VI. It is mutually agreed between the high contracting parties that the present convention shall be enforced so far as applicable in any other country in which either contracting party may exercise extraterritorial jurisdiction.

All rights growing out of the present convention shall be recognized in the insular and other possessions and leased territories of the high contracting parties and all legal remedies provided for the protection of such rights shall be duly enforced by the competent courts.

ART. VII. Any person amenable to the provisions of this convention who possesses at the time the present convention comes into force merchandise bearing an imitation of a trade-mark owned by another person and entitled to protection under said convention shall remove or cancel such false trade-mark or withdraw such merchandise from market in China within six months from the date of the enforcement of this convention.

ART. VIII. Unauthorized reproductions by the citizens or subjects of one high contracting party prior to the operation of this convention of the works of literature and art, as well as photographs, of the citizens or subjects of the other contracting party published after the 10th day of May, 1906, and entitled to protection in virtue of this convention shall be withdrawn from sale or circulation in China within one year from the date of the enforcement of this convention.

Particular attention may perhaps be directed to Article I of the above convention; and it should be specifically pointed out that the registration of trade-marks with the Japanese Patent Office in Tokyo is thereby provided as a necessary condition precedent, in order that the remedies contemplated by the convention may be available to Americans for the protection of their trade-marks against infringement, in the market of China, by Japanese subjects.

SUMMARY OF SITUATION.

It will be noted that for the protection of American industrial property in China, the means available are at least theoretically inadequate; and that there are certain obvious dangers of infringement, against which the Chinese Government is not competent to afford protection and which must be met by foresight in effecting due registration with the appropriate authorities of other countries whose nationals might be expected to enter the Chinese market with imitations. So far as concerns the protection that can be afforded to trade-marks by or through the Chinese Government, it should in the first instance be sought through the American consulate general at Shanghai, which will take such steps as are necessary to obtain provisional registration with the Customs; and in the case of patents, for which not even such provisional registration is available, it is advisable to deposit with the several consulates in China duly certified records of the patents granted by the American Government, in order at least to have on record local evidence of the assertion of such patent rights on a particular date. It may be repeated that, although such provisional registration or deposit may be of doubtful legal effect in perfecting rights of industrial property in the Chinese market, they are nevertheless of value as affording evidence of priority of use as a basis upon which to claim due protection from the Chinese authorities in the event of infringement.

Cases of infringement of American trade-marks should be promptly reported to the American consular office in the district in which the infringing trade-mark appears, as the consulate is usually able to obtain the necessary redress and protection in negotiations with the Chinese authorities.

UNITED STATES CUSTOMS REQUIREMENTS.[1]

By Commissioner of United States Treasury Department, Shanghai.

ENTRY OF MERCHANDISE.

Entry in a customhouse must be made of all importations into the United States, whether free or dutiable and regardless of their value.

Entries of merchandise exceeding in value $100, except personal effects accompanying a passenger, must be accompanied by a certified invoice thereof, unless the importer shall make application under oath, showing that it is impracticable to produce such invoice. If the collector of customs is satisfied that the failure to produce the certified invoice is for reasons beyond the control of the importer he may permit entry on a proforma invoice upon the giving of a bond (in double the amount of the estimated duties of the imported merchandise, or, if the merchandise is free of duty, the sum of $100) for the production of a duly certified invoice.

A certified invoice is an invoice that shall, at or before the shipment of the merchandise, be produced to the American consular officer of the consular district in which the merchandise was manufactured or purchased or contracted to be delivered from, and shall have endorsed thereon, when so presented to the consulate, a declaration signed by the purchaser, seller, manufacturer, owner, or agent stating that the invoice is in all respects correct and true and was made at the place from which the merchandise is to be exported to the United States.

The following kinds of entry may be made for imported merchandise:

CONSUMPTION ENTRY.

This is a duty-paid entry for imported merchandise intended for immediate consumption on arrival.

WAREHOUSE ENTRY.

If an importer desires to place merchandise in a bonded warehouse at his risk and expense for a period of time not exceeding three years from date of importation, without the payment of duty thereon, he shall make entry for warehousing accordingly.

WITHDRAWAL ENTRY FOR CONSUMPTION.

Merchandise may be withdrawn from warehouse for consumption at any time and in any quantity, not less than an entire package or, if the merchandise be in bulk, not less than one ton, upon the payment of the estimated or actual duty, as the case may require. This form of entry is called "withdrawal entry for consumption."

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[1] This chapter, while it does not relate especially to trade originating in the Far East, is included in the present handbook for the reason that, as stated by Commercial Attaché Arnold, American merchants in China are constantly calling for the kind of information embodied in it.

WAREHOUSE AND IMMEDIATE EXPORTATION ENTRY.

Merchandise shown by the manifest, bill of lading, invoice, or other document to be destined for a foreign country, without passing through a port of the United States, may be entered for warehouse and immediate exportation. A certified invoice need not be produced in this case. When such entry is made the collector of customs shall issue a permit addressed to the discharging inspector directing him to allow the merchandise to be transferred from the importing vessel to the vessel in which it is to be exported.

ENTRY FOR REWAREHOUSE.

When merchandise is withdrawn from warehouse at the original port of entry for transfer in bond to a secondary port within the United States, the merchandise may be again entered for warehouse at the second port of arrival without payment of duty. This entry is termed a "rewarehouse entry."

Other forms of warehouse entry are "entry for warehouse and withdrawal for consumption or exportation." In all cases of warehouse entries bond must be given in a penalty equal to double the estimated or determined duties.

For description of customs mail entries and baggage declaration and entries, the reader is referred to succeeding pages.

DRAWBACK.

Merchandise upon which duties have been paid may remain in bonded warehouse at the expense and risk of the owners, and if exported abroad directly therefrom within three years shall be entitled to a drawback of 99 per cent of the regular duties paid.

Merchandise upon which duties amounting to $50 or more have been paid under a consumption entry, if exported directly from the uninterrupted custody of officers of the customs, shall be entitled to drawback of 99 per cent of the regular duties paid.

No drawback shall be paid unless the merchandise be exported in the original packages in which imported (except as regards drugs, medicines, chemical preparations, unrefined sugars, and liquors), without diminution or change in quantity, quality, or value, unavoidable wastage or damage excepted.

Under paragraph O of section IV of the tariff act of October 3, 1913, a drawback is allowable on the exportation of articles manufactured or produced in the United States wholly or in part from imported materials, equal in amount to 99 per cent of the duties paid on the imported materials used, under such rules and regulations as the Secretary of the Treasury may prescribe (see Arts. 836 to 889, Customs Regulations, 1915).

PENALTY FOR ENTRY BY FALSE INVOICE OR STATEMENT.

If the consignor, seller, owner, importer, consignee, agent, or other person enters or attempts to enter imported merchandise by means of fraudulent or false invoice, declaration, affidavit, letter, paper, or by means of any false statement, written or verbal, or shall be guilty of any willful act or omission by means of which the United States shall or may be deprived of the lawful duties upon the merchandise so entered or attempted to be entered, such person upon conviction is subject to a fine for each offense in a sum not exceeding $5,000 or to imprisonment for not more than two years, or both. In addition, the merchandise or the value thereof will be forfeited, which forfeiture will apply to the whole of the merchandise or its value in the case or package containing the article or articles to which the fraud related.

The arrival within the territorial limits of the United States of merchandise consigned for sale and remaining the property of the shipper or consignor, and the acceptance by the consignee or agent of the consignor, shall be deemed an attempt to enter the merchandise although no actual entry has been made or offered.

CONSULAR INVOICES.

There seems to be considerable misunderstanding among shippers throughout China as to just what the United States customs laws require in the making up of consular invoices covering shipments for exportation to the United States.

Special attention must be given to a correct, complete, and detailed description of merchandise and of the packages, wrappings, or other coverings containing it.

Many shippers think it sufficient to make a brief statement of the contents of packages, often omitting the unit of value, and give scant attention to charges incident to preparing and placing such merchandise in condition ready for shipment. This practice is a source of trouble and annoyance to both customs officers and consignees and results in unnecessary delay in passing merchandise through the customhouse.

Consular invoices should correspond in every particular to private invoices covering the same shipment submitted to consignees and should set forth in detail marks and numbers of packages, quantities in pounds, yards, dozens, etc., quality, unit of value, and all charges accruing by reason of placing goods in condition ready for shipment. Too much information can not be given on invoices for customs purposes. Paragraph C, Section III, of the present customs law requires "that all invoices of imported merchandise shall be made out in the currency of the place or country from whence the importation shall be made, or, if purchased, or agreed to be purchased, in the currency actually paid, agreed upon, or to be paid therefor."

Where the sale price quoted or agreed upon is a c. i. f. price in United States currency, special care should be taken to enumerate, in the currency of the country where purchase is made, the charges contained in such c. i. f. price and to give the rate of exchange at which these charges were converted into United States currency. In all cases the consular invoice should show the rate of exchange at which drafts are drawn in payment or at which the particular business was consummated.

Another requirement of the customs law that shippers consistently and persistently ignore is that the invoice "shall contain a true and full statement of the time when, the place where, and the person from whom the merchandise was purchased or agreed to be purchased."

Many shippers contend that under the comprador system of carrying on business in China it is difficult for them to ascertain the names of persons from whom purchases are made because in most cases goods are produced in the interior and filter through several brokers to the place of final purchase or shipping point. There is some small merit in this contention, but shippers should require compradors to furnish them for invoice purposes with the names of the place of production and of the last person or persons making the sale.

MARKET VALUE AND CHARGES.

Paragraph R, Section III, of the tariff act of 1913 states "that whenever imported merchandise is subject to an ad valorem rate of duty, or to a duty based upon or regulated in any manner by the value thereof, the duty shall be assessed upon the actual market value or wholesale price thereof, at the time of exportation to the United States, in the principal markets of the country from whence exported." The same paragraph defines actual market value to be the price at which merchandise is freely offered for sale to all purchasers in said markets, in the usual wholesale quantities, and the price which the seller, shipper, or owner would have received and was willing to receive for such merchandise when sold in the ordinary course of trade in usual wholesale quantities, including the value of all cartons, cases, crates, boxes, sacks, casks, barrels, bottles, jars, and other containers or coverings, whether holding liquids or solids, and all other costs, charges, and expenses incident to placing the merchandise in condition, packed ready for shipment to the United States.

Where an appreciable length of time elapses between the actual purchase of the merchandise and the date of shipment of such merchandise, during which period of time the market value of the merchandise either advances or declines, or where the shipper has for any reason failed to state accurately the actual market value on consular invoice, the owner, consignee, or agent of any merchandise imported into the United States may, at the time he shall make entry of such merchandise in the United States, but not after the invoice or merchandise has come under the observation of the appraiser, make such addition in the entry to or such deduction from the cost or value given in the invoice, which he shall produce with his entry, as in his opinion may raise or lower the same to the actual market value or wholesale price of such merchandise at the time of exportation to the United States.

The usual charges accruing in the purchase and shipment of merchandise are as follows: Cases and packing; marine insurance; fire insurance; petties (including telegrams, postage, etc.); commissions; shipping; warehouse charges; coolie hire; freight; consular fee. Of these charges the following are nondutiable: Marine and fire insurance, petties, commissions (where such charge is a bona fide fee paid to commissionaire and not a part of market value), shipping and warehouse charges, coolie hire, freight, and consular fee.

PASSENGERS' BAGGAGE.

There is so much confusion and uncertainty among people traveling abroad as to just what is required by the customs laws of the United States regarding baggage and personal effects accompanying persons arriving from a foreign country that it is deemed advisable to give here the most important customs regulations on that subject.

The law provides that every person entering the United States from a foreign country shall make a declaration and entry of his or her personal baggage.

The senior member of a family, if a passenger, may declare for the entire family, including servants traveling with them.

Forms for baggage declaration will be furnished to steamship companies for use on steamships carrying first and second class passengers. Copies of notice to passengers will also be furnished for distribution on outgoing and incoming steamers. This notice contains instructions to passengers as to the manner of making declaration and as to what articles, etc., must be included in such declaration. Passengers should prepare and sign their declarations on board steamships at least one day before arrival, and should hand them to the purser for delivery to the proper customs officer on arrival in port.

Residents of the United States must declare all articles that they have obtained abroad by purchase or otherwise, whether used or unused, and whether on their persons, in their clothing, or in their baggage. The foreign value of each article, stated in United States money, must also be declared.

All dutiable articles, for convenience of passenger and customs officers, should be packed in one trunk, if practicable. Receipted bills for foreign purchases should be preserved and presented to customs officers if required. Use does not exempt from duty wearing apparel or other articles purchased abroad, but such articles will be appraised at their value in the condition as imported, due allowance being made for depreciation through wear and use.

Failure to declare dutiable articles contained in baggage subjects such articles to seizure and forfeiture. When the collector of customs is satisfied that failure to declare any article was not with intent to evade the payment of duty he may permit the declaration to be amended.

Persons arriving from foreign countries are divided into two classes—first, residents of the United States returning from abroad, and second, all other persons. The residence of a wife follows that of her husband, and the residence of a minor child follows that of its parents. Citizens of the United States, or persons who have formerly resided in the United States, shall be deemed to be residents thereof returning from abroad, unless satisfactory evidence is presented that they have given up their place of abode in the United States and acquired an actual fixed place of abode in a foreign country.

All persons not residents of the United States returning from abroad will be regarded for customs purposes as nonresidents; and they are entitled to bring into the United States free of duty all wearing apparel, articles of personal adornment, toilet articles, and similar personal effects (without limitation as to value) that were actually owned by them and in their possession abroad at the time of or prior to their departure from a foreign country and that are necessary and proper for their wear and use, provided they are not intended for other persons or for sale.

Residents of the United States returning from abroad may bring in free of duty:

(*a*) Articles up to but not exceeding $100 in value acquired abroad for personal or household use, or as souvenirs or curios, if not intended for sale or purchased on commission for other persons. Such articles purchased or agreed to be purchased abroad by returning residents may be admitted free notwithstanding they do not accompany the passenger. Articles intended for use in business or for other persons, theatrical apparel, scenery, or properties, must be declared by passengers, whether residents or nonresidents.

(*b*) All wearing apparel, personal and household effects, and articles for personal use taken abroad by them, if not advanced in value or improved in condition while abroad. Household effects of persons or families from foreign countries will be admitted free of duty only if actually used abroad by them not less than one year and if not intended for any other person or for sale. Such effects should be declared whether passenger be a resident or nonresident of the United States. If such articles or effects be advanced in value or improved in condition while abroad by reason of repairs or cleaning further than that necessarily incident to their wear and use while abroad, or by remodeling or alterations, the cost and value of such repairs, cleaning, alterations, or remodeling is subject to duty, and must be declared. Such cost or value may, however, be included in the $100 exemption.

Each member of the family is entitled to the $100 exemption, and when a husband, wife, and minor and dependent children are traveling together the articles included within such exemption may be grouped and allowance made without regard to the circumstance of which member they belong to.

PROHIBITED ARTICLES.

The importation of aigrettes, egret plumes, or so-called osprey plumes, and the feathers, quills, heads, wings, tails, skins, or parts of skins of wild birds, either raw or manufactured, and not for scientific or educational purposes, is prohibited. It applies to such plumage of American or foreign origin imported as merchandise or as passengers' baggage or worn on the person. It does not apply to baggage forwarded in bond for exportation. As the plumage of the following species may be obtained from either wild or domesticated birds, such plumage should be admitted only upon the presentation of a consular certificate or other satisfactory evidence that it was in fact taken from domesticated birds: Amherst pheasant, reeves pheasant, versicolor pheasant, black duck, mallard duck, mandarin duck, muscovy duck, swans, and the rhea.

Fur-seal garments made from the skins of seals taken in the open water of the North Pacific Ocean are prohibited importation by the act of August 24, 1912.

Sealskin garments worn by or contained in the baggage of persons arriving in the United States will not, however, be presumed to have been taken in prohibited waters, and will be admitted if the collector is satisfied that the same were taken from the United States, or are being brought in for temporary use only, or were purchased abroad from reputable merchants whose names and addresses shall be given and shown in the baggage declaration in order that the origin of the skins may be traced.

Dutiable merchandise imported and afterwards exported, although it may have paid duty on the first importation, is liable to duty on every subsequent importation into the United States; but this does not apply to wearing apparel, personal, and household effects taken abroad and brought back by a returning resident of the United States. Valuable effects of foreign origin may be submitted to the appraiser at the port of departure for examination and be registered by him for identification prior to the departure of the traveler and a certificate issued by him in duplicate on Customs Form 4447 for identification on return. One copy will be delivered to the applicant and the other filed in the appraiser's office. This procedure is advised in cases of residents of the United States contemplating a trip abroad who are in possession of sealskin garments, jewelry, or other articles of value, and artcles or effects to be repaired, remodeled, altered, or otherwise advanced in value while abroad.

PARCEL POST.

Any article admissible to the domestic mails of the United States may be imported in unsealed packages by parcels post (unless a prohibited importation) from the following countries with which the United States has parcel-post conventions: Australia, Austria, the Bahamas, Barbados, Belgium, Bermuda, Bolivia, Brazil, British Guiana, Chile, Colombia, Costa Rica, Curaçao, Danish West Indies, Denmark, Dominican Republic, Dutch Guiana, Ecuador, France, French Guiana, Germany, Gibraltar, Great Britain, Greece, Guadeloupe, Guatemala, Haiti, Honduras (British), Honduras (Republic of), Hongkong (colony), Hungary, Italy, Jamaica, Japan, Leeward Islands, Liberia, Mexico, Martinique, Netherlands, Newfoundland, New Zealand, Nicaragua, Norway, Panama, Peru, Salvador, Sweden, Trinidad, Uruguay, Venezuela, Windward Islands.

Customs declarations giving accurate statements of the contents and value must accompany all parcels so imported and be securely attached thereto.

Parcels from countries with which the United States has parcel-post conventions (except those from Colombia and Mexico) must not exceed 11 pounds in weight, nor the following dimensions: Greatest length in any direction, 3 feet 6 inches; greatest length and girth combined, 6 feet. The greatest length of such parcels from Colombia and Mexico must not exceed 2 feet, and the greatest girth must not exceed 4 feet.

Parcels to the United States from Shanghai, China, to which the domestic postal regulations are applicable, must not exceed 50 pounds in weight nor 84 inches length and girth combined. The postal rate on parcel-post packages from Shanghai, China, to the United States is 12 cents gold per pound or fraction thereof.

Dutiable articles may be imported in unsealed packages through the mails from the Philippine Archipelago, the Panama Canal Zone, and the United States postal agency at Shanghai, China.

Efforts have been made looking toward a system of prepaying duties on parcel-post packages sent from Shanghai, China, to the United States, the American post office at Shanghai being a United States postal agency. This arrangement was sought by persons desiring to send home to relatives and friends gifts and presents which they wished delivered free of any expense to the recipient. Under the existing tariff laws of the United States such an arrangement is not possible and, furthermore, would involve the installation at Shanghai of a complete customs organization in order to safeguard the revenue as required by law. Exporters and business firms of Shanghai resorting to the privileges of the parcel post where occasion demands are not, in the ordinary course of business, interested in the payment of duties at the point of destination, so that only a very small number of the shippers by parcel post would be benefited.

Dutiable articles may be imported in unsealed packages through the mails from the Philippine Archipelago, the Panama Canal Zone, and the United States postal agency at Shanghai, China.

The postal regulations provide for the forwarding of parcel-post and other unsealed packages imported through the mails to the following ports for examination: Atlanta, Ga.; Baltimore, Md.; Bangor, Me.; Boston, Mass.; Cleveland, Ohio; Chicago, Ill.; Denver, Colo.; Detroit, Mich.; Great Falls, Mont.; Honolulu, H. T.; Jacksonville, Fla.; Kansas City, Mo.; Los Angeles, Calif.; Louisville, Ky.; New Orleans, La.; New York, N. Y.; Omaha, Nebr.; Philadelphia, Pa.; Portland, Me.; Seattle, Wash.; St. Louis, Mo.; St. Paul, Minn.; Salt Lake City, Utah; San Francisco, Calif.; San Juan, P. R.; and Washington, D. C. After examination and appraisement at the above places, parcels, if less than $100 in value, are then forwarded to postmasters at ultimate destination for collection of duty, if any, and delivery.

Formal or regular entries, in the customhouse at port of examination, will be required for any parcel imported through the mails, not subject to a fine, when the value of the contents thereof exceeds $100.

When the appraised value of a parcel-post package exceeds the value stated in the customs declaration by more than 25 per cent, formal or regular entry should be required unless the collector of customs shall be of the opinion that the undervaluation is a fraudulent one, in which case seizure will be made for violation of Section III, paragraph H, of the act of October 3, 1913.

When several parcels from one sender to one addressee arrive in the same mail, and their aggregate value exceeds $100, formal or regular entry will be required.

Letters and parcels containing articles of a value less than $1 or on which the duty or fine is less than 25 cents, apparently intended as gifts or presents and not ordered by the addressee, may be passed free of duty. A duty and fine will be imposed. however, on all letters or parcels containing articles valued at less than $1 purchased abroad by the addressee, whether intended for sale or other purposes, or containing articles believed to have been so forwarded for the purpose of evading payment of duty.

MARKING AND LABELING.

Subsection 1 of paragraph F, section IV, of the present tariff act (Oct. 3, 1913) requires:

> That all articles of foreign manufacture or production, which are capable of being marked, stamped, branded, or labeled without injury, shall be marked, stamped, branded, or labeled in legibile English words, in a conspicuous place that shall not be covered or obscured by any subsequent attachments or arrangements, so as to indicate the country of origin. Said marking, stamping, branding, or labeling shall be as nearly indelible and permanent as the nature of the article will permit.

All packages containing imported articles shall be marked, stamped, branded, or labeled so as to indicate legibly and plainly, in English words, the country of origin and the quantity of their contents, and until marked in accordance with the directions prescribed in this section no articles or packages shall be delivered to the importer.

Should any article or package of imported merchandise be marked, stamped, branded, or labeled so as not accurately to indicate the quantity, number, or measurement actually contained in such article or package, no delivery of the same shall be made to the importer until the mark, stamp, brand, or label, as the case may be, shall be changed so as to conform to the facts of the case.

F. Subsection 2. If any person shall fradulently violate any of the provisions of this act relating to the marking, stamping, branding, or labeling of any imported articles or packages, or shall fraudulently deface, destroy, remove, alter, or obliterate any such marks, stamps, brands, or labels with intent to conceal the information given by or contained in such marks, stamps, brands, or labels, he shall upon conviction be fined in any sum not exceeding $5,000 or be imprisoned for any time not exceeding one year, or both.

TRADE-MARKS AND COPYRIGHTS.

Entry is prohibited of imported merchandise that shall copy or simulate the name of any domestic manufacture or manufacturer or trade, or of any manufacturer or trade located in any foreign country which, by treaty, convention, or law, affords similar privileges to citizens of the United States, or which shall copy or simulate a trademark registered in accordance with the provisions of the acts approved February 20, 1905, and May 4, 1906, or shall bear a name or mark calculated to induce the public to believe that the article was manufactured in the United States or that it was produced or manufactured in any foreign country or locality other than the country or place in which it was in fact so manufactured or produced.

Domestic or foreign manufacturers or traders, to avail themselves of the privileges of the trade-mark laws, are required to register their trade-marks with the commissioner of patents at Washington, D. C., before the Treasury Department can act.

Piratical copies of any work copyrighted in the United States are prohibited importations. "Piratical copies" are defined to mean either actual copies or substantial reproductions of legally copyrighted works, produced and imported in contravention of the rights of the copyright proprietor.

FREE LIST.

The free list of the present import tariff of the United States contains 271 paragraphs and enumerates hundreds of articles. A few of the important items listed as free of duty are as follows:

Agricultural implements.

Animals for breeding purposes (under certain conditions).

American merchandise returned.

Books, etc., printed more than 20 years at date of importation.

Books in foreign languages.

Books, etc., two copies, intended for and by order of education, religious, scientific, literary institutions.

Household effects in use abroad more than one year.

Drugs, crude.

Furs and fur skins undressed and hides of cattle, raw or uncured, or dry, salted or pickled.

An undressed fur skin is a raw skin not treated further than is necessary for preservation in transportation.

Leather boots and shoes.

Meats, fresh (under special regulations).

Minerals, crude.

Philosophical and scientific apparatus, utensils, instruments and preparations imported for use of or by any society or institution incorporated solely for religious, educational or scientific purposes or colleges, academy, school or State or public library and not for sale.

Professional books, implements, instruments, and tools of trade in actual possession of persons emigrating to the United States.

Tanning material.

Original paintings in oil, mineral, water or other colors.

Works of art (except rugs and carpets) produced more than 100 years prior to date of importation.

PORT OF ENTRY.

The term " port of entry " refers to any place in the United States at which a customs officer is stationed with authority to enter or clear vessels or collect duties on imports, or both. There are about 344 ports of entry, including inland ports as well as seaports, in the United States and Territories at which customs business may be transacted.

A list of these ports of entry may be had at any American consulate abroad or at any customhouse in the United States.

PROPOSED FEDERAL INCORPORATION LAW.

There is given in the succeeding pages of this chapter a draft of a proposed Federal Incorporation Law to provide for the incorporation of American companies for the purpose of carrying on foreign trade. This draft was prepared by the American Chamber of Commerce of China in cooperation with Hon. Charles Denby, of the United States War Trade Board, who conducted a special investigation in China of the conditions affecting the development of American trade in that country.

Under present American laws there is no machinery for incorporating companies for the special purpose of foreign trade, and companies organized for this special purpose are compelled to incorporate under the laws of the various States, with their varying and often conflicting regulations. To quote the comment of one of the most widely circulated American periodicals, "the Chinese do not know anything in particular about New Jersey, Delaware, New York, and so on. Their lawyers tell them that the United States has nothing in particular to do with these corporations; that they are the creatures of the various States; that these States have different laws; that the provisions of a given charter may be lawful in one State and unlawful in another. The Chinese * * * turn to a company whose charter bears the seal of a great nation." Concerning the need for the proposed legislation, the New York Journal of Commerce has the following to say:

> As commercial conditions exist in China the Chinese are much inclined to invest their money in companies under foreign charters, but it has been found that a country which can bring under its charters the investment of large sums of Chinese money gains a status in the Chinese community not held by countries whose charters are less acceptable to the Chinese community. Hence a great field of commercial development would unquestionably be open to the United States if we could offer such a charter to the American merchant in China as would appeal to the Chinese investor. Great Britain has perceived the importance of this and has in its Hongkong "companies ordinance" provided a very suitable charter for business in China. It happens that this charter is almost universally used, and it is not uncommon to find incorporated under the Hongkong ordinance a variety of companies for an equal variety of purposes, in which the capital is mainly Chinese and that of other nations, even of British subjects themselves, is proportionately small. As a matter of fact, Americans who wish to invite the capital of Chinese and other nationalities are compelled to resort to the laws of England to do their business in a corporate capacity in China. They thus submit themselves to English jurisdiction and become, in their corporate capacity, British subjects, under the control of British courts and consular authorities. Their business, moreover, figures as an asset of Great Britain in the communities in which they may be established.

The American Chamber of Commerce of China is composed of more than 100 American firms or branches of American firms that have been engaged in business in China for periods ranging from 1 to 40 years. Since these firms have been actually in the field of foreign trade and have been in competition with firms of other than American nationality, the chamber feels that it is in a position to speak with authority on the needs of the United States in connection with the upbuilding of American trade after the war. In the light of an understanding of these problems, based upon actual experience, the following draft has been prepared:

AN ACT TO PROVIDE FOR THE INCORPORATION OF COMPANIES FOR CARRYING ON FOREIGN BUSINESS EXCLUSIVELY, AND FOR OTHER PURPOSES.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That a corporation may be formed as provided in this act for engaging in and carrying on any lawful business exclusively in countries foreign to the United States of America or countries in which the United States exercises extraterritorial jurisdiction.

SECTION 2. Any number of persons not less than three, a majority of whom shall be citizens of the United States, desiring to become incorporated under this act shall subscribe and acknowledge articles of incorporation which must contain, first, the name of the corporation, which shall begin with the word "The" and end with the words "company, of the United States"; second, the location of its principal office and the place where its principal business is to be transacted; third, the purpose for which it is formed; fourth, the amount of its capital stock and the number of shares into which it is divided.

SEC. 3. Articles of incorporation shall be acknowledged before an officer authorized to administer an oath, the form of which acknowledgment shall be prescribed by the Secretary of Commerce.

Articles of incorporation shall be filed with the Secretary of Commerce, or the clerk of the highest court of the United States in any foreign country, who shall record them and shall also record certificates relating to the corporation thereafter filed with him.

SEC. 4. Upon filing articles of incorporation, the persons who subscribe them, their associates, successors, and assigns, by the name and style provided therein, shall be a body corporate, with succession, power to sue and be sued, in any court of law or equity of the United States, or of the various States and Territories, including the District of Columbia, or of any State or Territory in which the United States enjoys sovereignty, or in the courts of any foreign country, or in the courts of the United States in any country in which the United States has extraterritorial jurisdiction, contract and be contracted with, also, unless specially limited, to acquire and hold all property, real or personal, necessary to effect the object for which it is created, and at pleasure convey it in conformity with its regulations and the laws of the country in which it is located. Such corporation also may make, use and at will alter a common seal, and do all other acts needful to accomplish the purposes of its organization.

SEC. 5. The Secretary of Commerce, or other recording officer named in section 3. shall not file or record any articles of incorporation wherein the corporate name is likely to mislead the public as to the nature or purpose of the business its charter authorizes, nor if such name is that of an existing corporation, or so similar thereto as to be likely to mislead the public, unless the written consent of the existing corporation, signed by its president and secretary, be filed with such articles.

SEC. 6. A copy of the articles of incorporation so filed and duly certified by the Secretary of Commerce, or other recording officer, shall be prima facie evidence of the existence of the corporation therein named.

SEC. 7. The persons named in the articles of incorporation under this act, or a majority of them, shall order books to be opened for subscriptions to the capital stock of the corporation at such time or times and place or places as they deem expedient, and all persons subscribing to the stock of the corporation shall furnish proof of their nationality and at no time shall more than 49 per cent of the stock issued carrying voting power be owned, held, or registered by persons other than citizens of the United States of America either in their own right or in trust for any other person or persons.

SEC. 8. Such persons shall give at least 30 days' notice of the times and places of opening of such books of subscription, by publication in a newspaper published or generally circulated in the place or places where they are to be opened. Such notice, however, may be waived in writing by all the incorporators, but the waiver shall be entered or copied in the corporate records.

SEC. 9. At the time of making a subscription to the capital stock of a corporation, 20 per cent of each share subscribed for shall be payable. The residue shall be paid in such installments at such times and places, and to such persons, as the directors of the corporation require.

SEC. 10. When 20 per cent of the capital stock is subscribed, the subscribers to the articles of incorporation, or a majority of them at once shall so certify in writing to the Secretary of Commerce and other recording officer with whom articles have been previously filed.

SEC. 11. The incorporators shall be liable to any person affected thereby, in the amount of any deficiency in the actual payment of 20 per cent on the stock subscribed for at the time of so certifying to the Secretary of Commerce and other recording officer.

SEC. 12. As soon as such certificate is made and filed with the Secretary of Commerce and other recording officer, the signers thereto, shall give notice to the subscribers to the capital stock as provided in section 8 hereof, to meet at such time and place as the notice designates, for the purpose of electing not less than five directors, to continue in office until their successors are elected and qualified at the first regular meeting which shall take place within one year and thereafter such meetings and elections shall be annual. But if all the subscribers to the capital stock are present in person or by proxy at such first meeting called for the election of directors, the notice required by this section may be waived by them in writing.

SEC. 13. At the time and place appointed, directors shall be chosen by ballot, by the stockholders who attend, either in person or by lawful proxies. At such and all other elections of directors, the election shall be by ballot and each stockholder shall be entitled to as many votes as he owns shares of stock in the company, and the persons receiving the greatest number of votes shall be elected directors. Directors shall not be elected in any other manner. No person shall vote on a share of stock on which an instalment is due and unpaid.

SEC. 14. At such first election the subscribers of the articles of incorporation present, or any other persons chosen by the stockholders present, shall be inspectors of election, certify what persons are elected directors and appoint the time and place for holding their first meeting.

SEC. 15. Before every meeting held for the election of directors, or for the determination of any question, by the stockholders of a corporation, or by the subscribers to its stock, or by its creditors and stockholders for its reorganization, the officer or agent of the corporation having charge of the transfer of the stock, under oath must make out a list of its stockholders, showing the number and classes of shares held by each, as shown by its books, on the date fixed for closing the stock transfers before its meetings; or if no time be fixed therefor, then at the hour of noon on the tenth day prior to the date of such meeting. Such list shall be delivered to the inspectors of the meeting, and be prima facie evidence of the ownership of its stock. In case good cause is shown for the absence of such list the inspectors shall ascertain the ownership of stock by the corporation books, stock certificates or other proof.

SEC. 16. The inspectors so appointed, or if none be appointed, then those selected by the meeting, shall receive and count the votes cast at such meeting, or at any adjournment thereof, either upon an election or for the decision of any question to be decided by vote, and determine the result. Their certificate shall be prima facie evidence thereof.

SEC. 17. The corporate powers, business and property of corporations formed under the provisions of this act shall be exercised, conducted, and controlled by the board of directors.

SEC. 18. A majority of such directors must be citizens of the United States. All directors and executive officers shall be holders of stock of the company for which they are chosen, in an amount to be fixed by the by-laws.

SEC. 19. When the office of director becomes vacant, the board of directors may fill it for the unexpired term as provided for by the by-laws.

SEC. 20. As soon thereafter as is convenient, the board of directors chosen at any election shall select one of their number to be chairman thereof, and unless the regulations of the body otherwise provide for the election of a president and such officers, also appoint a secretary and treasurer of the corporation and such other officers as may be necessary.

SEC. 21. By a vote of a majority of its stock, at a regular meeting of a corporation organized under the provisions of this act, it may increase the number of its directors to such number as is deemed advisable. In like manner, at any time, the number of directors can be reduced to not less than five. At a special meeting of stockholders, also called, and of which notice was given as provided for the election of directors, by vote of a majority of its stock, the increase in the number of directors may be made. Those elected shall hold their offices until the next annual election for directors and until their successors are elected and qualified.

SEC. 22. A corporation organized under the provisions of this act must have a capital stock, which may consist of common and preferred or common only voting or nonvoting; but at no time shall the amount of preferred stock at par value exceed two-thirds of the actual capital paid in in cash or property.

SEC. 23. When the capital stock is to be both common and preferred, it may be provided in the articles of incorporation that the holders of the preferred stock shall be entitled to yearly dividends of not more than 8 per cent, payable quarterly, half-yearly, or yearly, out of the surplus profits of the company each year in preference to all other stockholders. Such dividends also may be made cumulative.

SEC. 24. A corporation issuing both common and preferred stock may create designations, preferences, and voting powers, or restrictions or qualifications thereof, in the certificate of incorporation, and if desired, preferred stock may be made subject to redemption at not less than par, after a fixed time and at a set price, to be expressed in the stock certificates thereof.

SEC. 25. Should any corporation organized under the provisions of this act become insolvent, no holder of preferred stock shall be liable for its debts until after the remedy against the common stockholders upon their liability, as hereinafter provided, has been exhausted, and then only for such amount as remains unpaid. Such liability in no event shall exceed that fixed by this act for the common stock of such corporation. (See section 38.)

SEC. 26. Upon the insolvency or dissolution of any corporation organized under the provisions of this act the holders of preferred stock shall be entitled to receive from the assets of the corporation remaining after paying its liabilities, the full payment of its par value, before anything is paid to the common stock.

SEC. 27. The directors of such corporation, when organized, shall cause to be kept a record of all stock subscribed and transferred, and its secretary or recording officer shall register all subscriptions and transfers of stock. For that purpose a book shall be kept, and when a certificate of stock is assigned and delivered by a stockholder, the assignee thereof on demand may have it duly transferred therein by such officer, who at the same time shall enroll also the name of the assignee as a stockholder. The books and records of all corporations organized under the provisions of this act at all reasonable times shall be open to the inspection of every stockholder.

SEC. 28. Title to a certificate and to the shares represented thereby can be transferred only—

(1) By delivery of the certificate indorsed either in blank or to a specified person by the person appearing by the certificate to be the owner of the shares represented thereby, or

(2) By delivery of the certificate and a separate document containing a written assignment of the certificate or a power of attorney to sell, assign, or transfer the same or the shares represented thereby signed by the person appearing in the certificate to be the owner of shares represented thereby. Such assignment or power of attorney may be either in blank or to a specified person.

No provision shall be incorporated in the charter or articles of incorporation or by-laws of the corporation or printed upon the certificates of stock which shall provide for the transfer of shares in other manner than is provided for in this section.

SEC. 29. Nothing in this act shall be construed as enlarging the powers of an infant or other persons lacking full legal capacity, or limiting the power of a trustee, executor or administrator, or other fiduciary, to make a valid indorsement, assignment or power of attorney.

SEC. 30. Nothing in this act shall be construed as forbidding a corporation—

(1) To recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, or

(2) To hold liable for calls and assessments a person registered on its books as the owner of shares.

SEC. 31. The title of a transferee of a certificate under a power of attorney or assignment not written upon the certificate, and the title of any person claiming under such transferee, shall cease and determine if, at any time prior to the surrender of the certificate to the corporation issuing it, another person for value in good faith, and without notice of the prior transfer, shall purchase and obtain delivery of such certificate with the indorsement of the person appearing by the certificate to be the owner thereof, or shall purchase and obtain delivery of such certificate and the written assignment or power of attorney of such person, though contained in a separate document.

SEC. 32. There shall be no lien in favor of the corporation upon the shares represented by a certificate issued by it, and there shall be no restriction upon the transfer of shares so represented by virture of any by-law or otherwise, unless the right of the corporation to such lien or the restriction is stated upon the certificate. Except that it is provided by section 7 of this act that at no time shall more than 49 per cent of the voting stock issued be owned, held, or registered by persons other than citizens of the United States of America either in their own right or in trust for any other person or persons.

SEC. 33. If an installment on stock is unpaid for 30 days after the time it was to be paid, whether the stock is held by the subscriber, an assignee, or transferee, it may be collected by suit, or the directors may sell such stock for the installment then due.

SEC. 34. Before the directors can sell such stock, they shall give 30 days' notice of the time and place of sale, in some newspaper in general circulation of the place or at the place where the delinquent holder resided when he subscribed for it or became such assignee or transferee, or of his actual residence at the time of sale.

SEC. 35. When a sale of such stock is made, if after paying from its proceeds the amount due on the stock, a balance remains, the same shall on demand be paid to the owner. But if such proceeds fail fully to pay such installment, any balance may be recovered by action against the subscriber, assignee, or transferee.

SEC. 36. A corporation organized under the provisions of this act may purchase, or otherwise acquire, and hold shares of stock in other kindred but not competing corporations. This shall not authorize the formation of a trust or combination for the purpose of restricting trade or competition.

SEC. 37. Every corporation organized under the provisions of this act, annually shall make a statement of its financial conditions, setting forth its assets and liabilities, and file the same with the Secretary of Commerce and other recording officer and furnish to each stockholder a true copy thereof.

SEC. 38. The stockholders of a corporation organized under the provisions of this act shall be severally and individually liable to the creditors of such corporation for the unpaid amount due upon the balance of stock held by them, respectively, for all debts and contracts made by such corporation, until the whole amount of capital stock fixed and limited by such corporation shall have been paid in.

SEC. 39. An action upon the liability of the stockholders of such corporation under the next preceding section can only be brought within two years after the debt or obligation shall become enforceable against the stockholders.

SEC. 40. The term "stockholder" as used in the next preceding sections shall apply not only to persons who appear by the books of the corporation to be such, but also to equitable owners of stock, although on the books of the corporation it appears in the name of another person.

SEC. 41. The original capital stock of a corporation organized under the provisions of this act shall not be increased until the organization is completed and the officers duly elected and qualified. After such organization is completed and the officers duly elected and qualified an increase in the capital stock may be made by a vote of the holders of a majority of its stock, at a meeting called by a majority of its directors, at least 30 days' notice of the time, place, and object of which has been given by publication in some newspaper of general circulation, or by letter addressed to each stockholder whose place of residence is known. Or, the stock may be increased at a meeting of the stockholders at which all are present in person, or by proxy, and waive in writing such notice by publication or letter; and also agree in writing to such increase, naming the amount thereof to which they agree. A certificate of such action shall be filed with the Secretary of Commerce and other recording officer named in section 3.

SEC. 42. Upon the assent in writing of the stockholders of a corporation, organized under the provisions of this act, representing at least three-fourths of its capital stock, to increase the capital stock, it may issue and dispose of preferred stock in the manner provided therefor. Upon the increase of stock, a certificate shall be filed with the Secretary of Commerce or other recording officer.

SEC. 43. Upon the assent in writing of the persons in whose names a majority of the shares of the capital stock of a corporation organized under the provisions of this act stands on its books, the board of directors of such corporation may reduce the amount of its capital stock and the nominal valuation of all the shares thereof and issue certificates therefor. The rights of creditors shall not be affected by such reduction in the amount of such capital stock, and a certificate of such action shall be filed with the Secretary of Commerce or other recording officer.

SEC. 44. The directors of a corporation organized under the provisions of this act may adopt a code of by-laws for their government consistent with the regulations of the corporation and the laws of the country in which its principal office is located and may change such by-laws at pleasure.

SEC. 45. Regulations for the government of corporations organized under the provisions of this act may be adopted or changed by the assent thereto, in writing, of the holders of two-thirds of the stock, or by a majority of the stockholders present at a meeting held for that purpose, notice of which has been given personally to each member or stockholder, or by publication in some newspaper of general circulation in the place where the head office of the corporation is located.

SEC. 46. When no other provision is especially made, a corporation organized under the provisions of this act by its by-laws may provide—

(1) The time, place, and manner of calling and conducting its meetings.

(2) The number of stockholders or members constituting a quorum.

(3) The time of the annual election for directors and other officers, and the manner of giving notice thereof.

(4) The duties and compensation of directors and other officers.

(5) The manner of election or appointment, and the tenure of office, of all officers other than the directors.

SEC. 47. A corporation organized under the provisions of this act may borrow money in any sum not exceeding the amount of its capital stock, issue its notes or coupon or registered bonds therefor, bearing any legal rate of interest, and secure their payment by a mortgage of its property, real or personal, or both.

SEC. 48. A mortgage of real and personal property made by a corporation organized under the provisions of this act shall be duly recorded in the office of the recorder of deeds or other proper officer at each place in which the real or personal property mortgaged is situated or employed, and a certified copy of such mortgage shall be filed with the Secretary of Commerce and other recording officer.

SEC. 49. A mortgage recorded with the recorder of deeds or other proper officer, as provided for in the preceding section, shall be a good and sufficient lien from the date of its filing for record where it is recorded upon the personal as well as the real property of such corporation.

SEC. 50. A corporation organized under the provisions of this act which lawfully has issued registered or coupon bonds, upon the request of a holder thereof may change such registered into coupon bonds, or coupon into registered bonds, either by substitution or by proper indorsement thereon. All liens, securities, and rights which existed on or accrued to such original bonds shall be and continue on and to such substituted or indorsed bonds.

SEC. 51. No corporation organized under the provisions of this act shall sell its entire property and assets to any person, persons, partnerships, associations, or corporation, whether organized for the same or similar purposes or otherwise, unless three-fourths of the directors of such corporation authorize the execution of an agreement therefor prescribing the terms, considerations, and conditions thereof. The considerations may be money, stocks, bonds, or other instruments for the payment of money or any valuable consideration.

SEC. 52. The agreement provided for in the preceding section shall be submitted to the stockholders of the corporation at a meeting called for the purpose, 15 days' notice of the time and place of holding which, and the object thereof, shall be given by registered letter containing a written or printed notice addressed to each of the persons in whose names the stock of the corporation stands on its books. But when all the stockholders are present at such meeting in person or by proxy, notice may be waived in writing.

SEC. 53. At such meeting of the stockholders the agreement of the directors shall be considered and a vote by ballot taken for its adoption or rejection. For each share of stock on which all the installments called for by the board of directors have been paid the holder thereof shall be entitled to one vote. The ballots must be cast in person or by proxy, and if three-fourths of all the votes cast at the meeting be for the adoption of the agreement, it shall be valid and binding on such corporation. Upon its adoption, the officers of the corporation shall execute and deliver to the purchaser good and sufficient deeds and transfers of all the property and assets of the corporation, upon the terms and conditions in the agreement provided.

SEC. 54. A sale of its entire property by a corporation organized under the provisions of this act, as hereinbefore authorized, shall not be made for the formation of or to a trust or combination for the purpose of restricting trade or preventing competition.

SEC. 55. A corporation organized under the provisions of this act may amend its articles of incorporation as follows:

1. So as to change its corporate name—but not to one already appropriated or to one likely to mislead the public.
2. So as to change the place where it is to be located or its principal business transacted.
3. So as to modify, enlarge, or diminish the objects or purposes for which it is formed.
4. So as to add to them anything omitted which lawfully might have been provided for originally in such articles. But the capital stock of such corporation shall not be increased or diminished by such amendment except in the manner provided in section 41 of this act, nor shall the purpose of its original organization be substantially changed.

SEC. 56. Amendments to articles of incorporation may be made at any meeting of the stockholders thereof, of which, and of the business to come before it, 30 days' notice has been given by a majority of the directors in a newspaper published and of general circulation at the place where the corporation's principal place of business is located, and by a vote of the owners of at least three-fifths of its capital stock then subscribed.

SEC. 57. When thus adopted, a copy of such amendment, with a certificate thereto affixed, stating the fact and date of its adoption, that such copy is a true copy thereof, signed by the president and secretary of the corporation, sealed with its seal, shall be filed with the Secretary of Commerce and other recording officer, who shall cause by note on the margin of the record of the original articles filed by such corporation, and on the margin of the index thereto, the volume and page where such amendment is recorded.

SEC. 58. Amendments to articles of incorporation shall not take effect until filed for record with the Secretary of Commerce or other recording officer, nor, unless it be waived, as provided in the next section, until the corporation gives notice of them in some newspaper of general circulation in the place where the principal office or business is located, for three consecutive weeks.

SEC. 59. All notices required by the preceding section in such proceedings to amend the articles of incorporation may be waived when the holders of all the capital stock of a corporation consent thereto in writing.

SEC. 60. Directors of a corporation organized under the provisions of this act shall not make dividends except from surplus profits arising from the business of the corporation.

SEC. 61. In order to ascertain the surplus profits from which a dividend may be made, in the account of profit and loss there shall be charged and deducted from the gross profits—

1. All ordinary and extraordinary expenses, paid or incurred, in managing the affairs and transacting the business of the corporation, and a reasonable depreciation upon its plant and property.
2. Interest paid, or then due or accrued, on debts it owes.
3. All losses of the corporation. In computing its losses, debts owing to it which have been due without prosecution, or interest paid thereon, for more than one year, or upon which judgment was recovered, but has been more than two years unsatisfied, and on which also for that period no interest was paid, shall be included.

SEC. 62. When all the capital stock of a corporation has not been actually paid in, the corporation shall not advertise the amount of authorized capital stock without also stating the amount actually paid in, nor shall a corporation advertise a greater dividend than has actually been earned and credited or paid to its stockholders.

SEC. 63. Every director of such a corporation who violates or is concerned in violating any provision of the four preceding sections hereof shall be personally liable to the creditors and stockholders of the said corporation for any loss which thereby they respectively sustain.

SEC. 64. Every corporation organized under the provisions of this act shall file an annual report with the Secretary of Commerce and other recording officer during the month of January, in such form as the Secretary of Commerce may prescribe. This report shall be accompanied by an affidavit in such form as the Secretary of Commerce may prescribe, subscribed and sworn to by an officer of the corporation having knowledge of the facts therein contained.

SEC. 65. Upon the dissolution of a corporation organized under the provisions of this act, and unless other persons be appointed by the stockholders, the directors of the affairs of such corporation shall be the trustees of the creditors and stockholders thereof and have full power to settle its affairs, collect and pay outstanding debts, and divide among the stockholders the money and other property remaining, in proportion to the stock of each stockholder paid up, after the payment of debts and other necessary expenses.

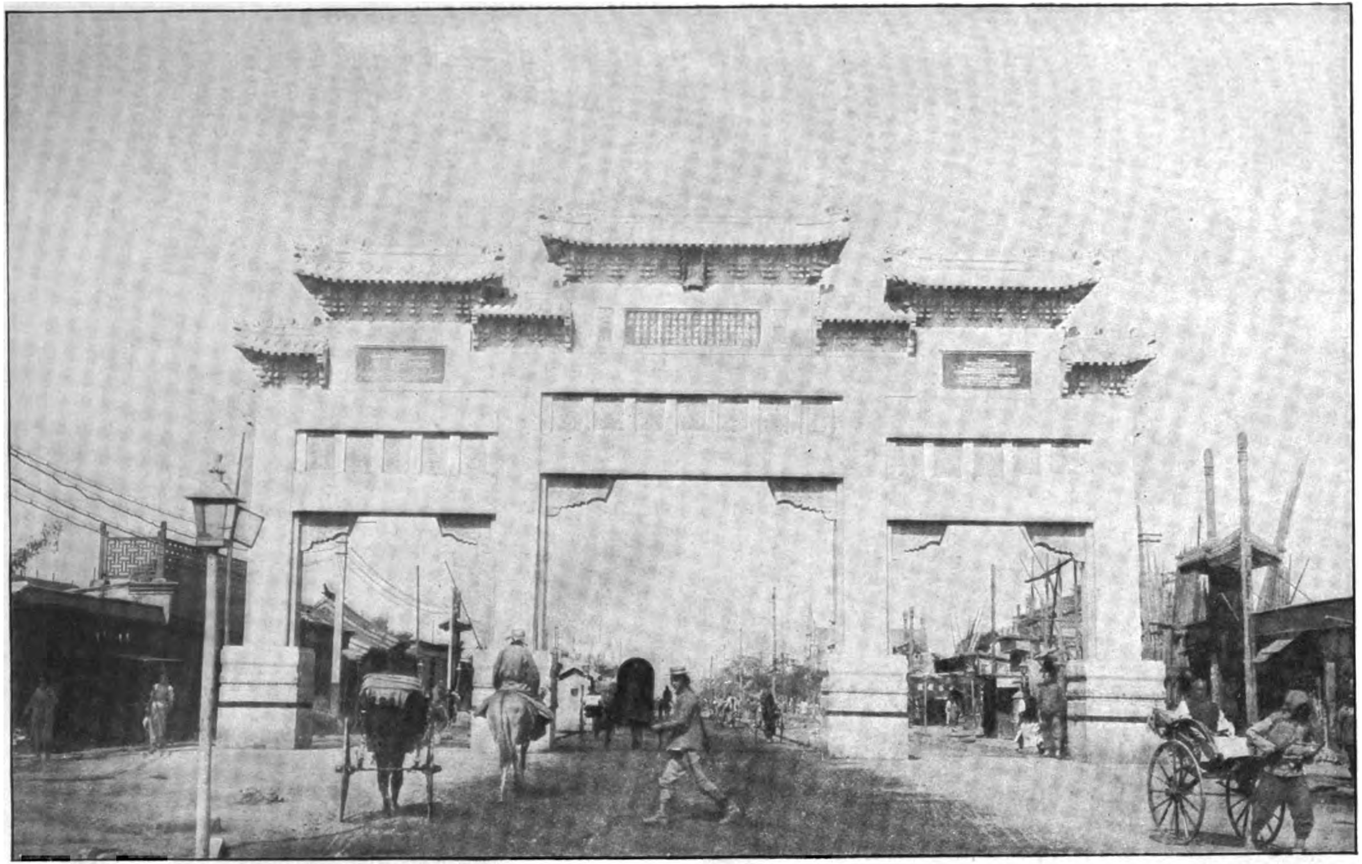
SEC. 66. If all the stockholders present at such meeting in person or by proxy decide to surrender and abandon its corporate authority the corporation shall be abandoned and dissolved upon the filing of a certificate of the abandonment or dissolution with the Secretary of Commerce.

SEC. 67. When a majority of the directors or other officers having the management of a corporation organized under the provisions of this act, which has completely closed its business, and paid all the debts and liabilities incurred by it, desire to surrender its corporate authority and franchises, they, or the president of such board of directors, may call a meeting of the stockholders at such time or place as he or they designate by publication for four weeks in some newspaper published and of general circulation of the country wherein the principal office of the corporation is located and by written notices addressed to each of the stockholders whose residence is known, of the object, time, and place of the meeting.

SEC. 68. The persons so constituted trustees may sue for and recover the debts and property of the dissolved corporation, by the name of trustees of the corporation, describing it by its corporate name, and jointly and severally they shall be responsible to the creditors and stockholders of the corporation, to the extent of its property and effects coming into their hands. Such trustees may be made or become parties to any action by or against the corporation. All liens or judgments existing at the time of the dissolution, either in favor of or against the corporation, shall continue in force as if the dissolution had not taken place.

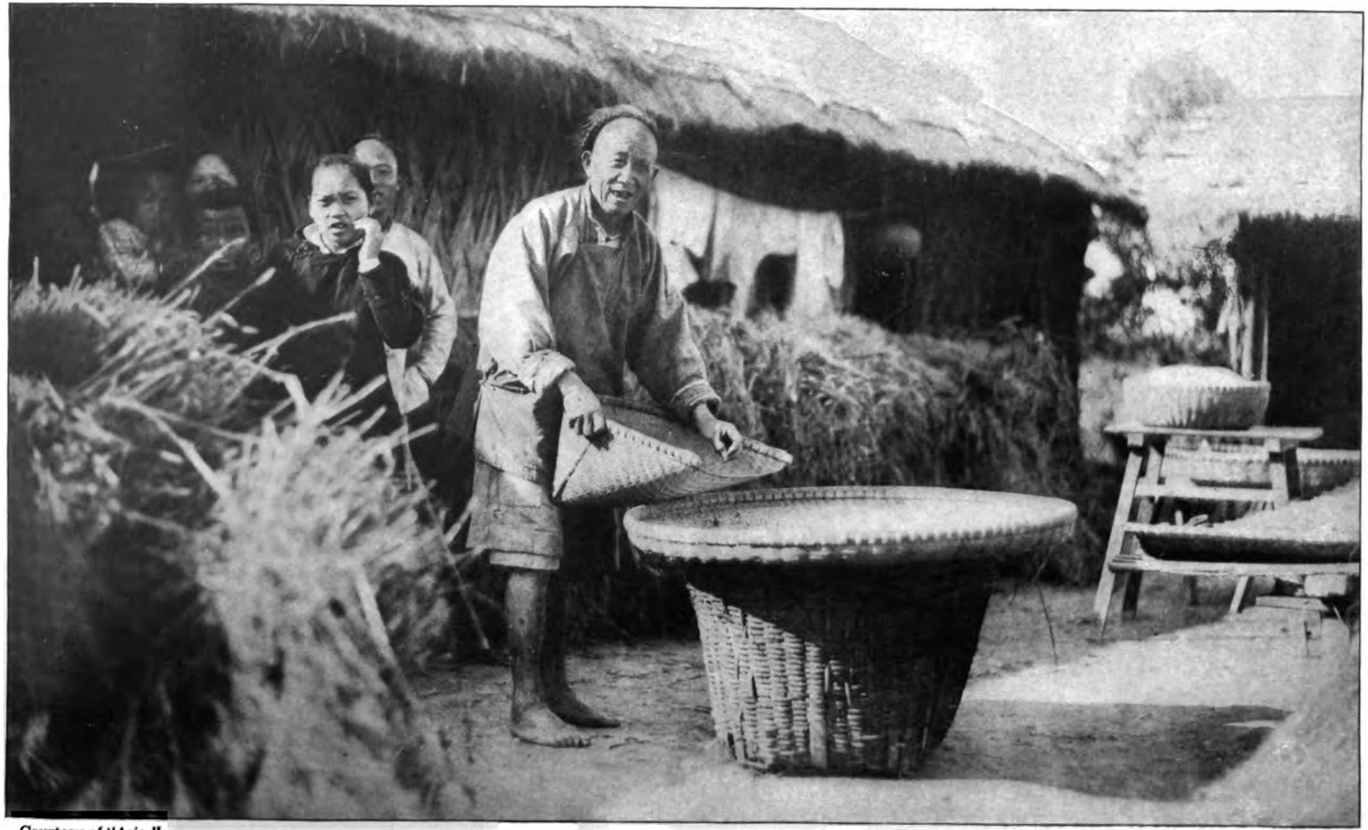
SEC. 69. No corporation created under the provisions of this act shall, by any implication or construction, be deemed to possess the power of carrying on the business of discounting bills, notes, or other evidences of debt, of receiving deposits of money or foreign coins, or buying and selling bills of exchange, or of issuing bills, notes, or other evidences of debt for circulation as money: *Provided, however,* That corporations created or to be created under the provisions of this act to buy, sell, and otherwise deal in notes (not including the discounting of notes), open accounts, and other similar evidences of debt (not including bills of exchange), or to loan money and to take notes, open accounts, and other similar evidences of debt as collateral security therefor, shall not be construed or considered to be within the prohibition of this section; and corporations created or to be created for such purposes may charge such amounts as may be agreed upon by the respective parties.

SEC. 70. In order that this act may be as effective, useful, and attractive as similar acts enacted by other countries, and in order that corporations created under this act may be on an equal footing in foreign trade as corporations created under similar acts of other countries, all corporations created under the provisions of this act and doing business exclusively in countries foreign to the United States and those countries in which the United States exercises extraterritorial jurisdiction shall be exempt from Federal tax of any nature whatsoever, except the fees for filing the articles of incorporation and such other fees as may be prescribed by the Secretary of Commerce under the provisions of this act.



Courtesy of "Asia."

FIG. 4.—STREET SCENE IN PEKING.



Courtesy of "Asia."

FIG. 5.—WINNOWING RICE IN CHINA.

CHINA'S TARIFFS AND INTERNAL TAXES.

By Commercial Attaché Julean Arnold.

INTRODUCTION.

The tariffs and internal taxes affecting foreign trade in China are very different from the American conception of tariffs and internal taxes. China has both an import and an export tariff, which are embodied in its treaties with foreign powers. By virtue of the most-favored-nation clause which is part of every treaty negotiated by a foreign power with China, every favored consideration obtained by any one nation becomes the right of every other treaty power, so that there is no preferential tariff system. China does not enjoy customs autonomy, either in the making of its tariff or the administration thereof, both being dictated by foreign interests.

NEW TARIFF DRAWN UP BY CONFERENCE AT SHANGHAI.

The representatives of 14 treaty powers recently met in Shanghai with the representatives of the Chinese Government and revised the import tariff, with the object in view of giving China an effective 5 per cent import tariff on certain goods which for customs valuation purposes were in 1902 placed on a specific basis determined by the average of prices for the years 1897, 1898, and 1899. The basis of valuations, as determined in this revision for fixing customs valuations on a specific basis, is the average of prices on these commodities for the years 1912 to 1916, inclusive. Certain commodities, such as machinery, the prices of which could not without great difficulty be fixed for customs valuations, were continued on a 5 per cent ad valorem basis. By this revision, which became effective August 1, 1919, the tariff import duty on any article will not pay more than a 5 per cent duty; and on many articles upon which the customs valuations have been fixed the duty actually paid will be less than a 5 per cent ad valorem, figured on present-day prices. It will be possible, according to the terms of the agreement to this revision, for a further revision to be made two years after the termination of the war, in order to adjust the tariff to changed conditions resulting from a supposed partial reversion, at least, to normal prewar prices. A copy of the revised import tariff is given in this chapter, beginning on page 88.

POSSIBILITY OF INCREASED DUTY IN FUTURE.

The American treaty of 1903 with China stipulates that so soon as China effectually abolishes its likin taxation, its duties on goods in transit, and the imposition of the surtax on the import of foreign goods and on the export of native goods, the United States will agree to an import tariff on foreign goods not to exceed 12½ per cent ad valorem and an export tariff on native produce not to exceed 7½ per cent. The British treaty of 1902 contains substantially the same proviso. It would seem that in the next revision of China's tariff the foreign powers will be in duty bound to increase the tariff to at least a 12½ per cent ad valorem basis.

ONE-THIRD REDUCTION ON GOODS ENTERING FROM LAND FRONTIERS.

There is, by virtue of treaty stipulations with certain powers, a reduction of one-third in the customs duties for goods entering China from the land frontiers. This special tariff consideration was originally the result of an agreement between China and Russia in 1869, and was really intended to cover goods coming into China from Mongolia, carried hundreds of miles on pack animals, principally camels. It was extended later to the trans-Mongolian export trade. In both cases it was a concession to an expensively handled trade, presumably to encourage the frontier trade, which over this route could never be expected to become of great consequence. But a favor granted in one instance in China's relations with other powers is soon claimed by others, so this consideration was subsequently extended to the French and to the British frontier trade in southwest China, and was later claimed by the Japanese in their railway traffic into China via Korea, although the agreement was not originally intended to cover goods transported by rail.

RULES GOVERNING PAYMENT OF DUTY.

The 5 per cent ad valorem import duty is, as a general rule, assessed on the c. i. f. prices—that is, on the invoice value, plus insurance and freight—although the customs reserve the alternative of assessing the duty on the Shanghai market values less 12 per cent. The 12 per cent deduction is supposed to reduce the market price to the equivalent of the c. i. f. price, as it is presumed to include 5 per cent duty, 2½ per cent commission, and landing, warehouse, customs clearance, and other charges. Under the Rules for the Revised Import Tariff, October, 1902, it is stipulated as follows:

> If the goods have been sold before presentation to the customs of the application to pay duty, the gross amount of the bona fide contract will be accepted as evidence of the market value. Should the goods have been sold on c. f. and i. terms, that is to say, without inclusion in the price of duty and other charges, such c. f. and i. price shall be taken as the value for duty-paying purposes without the deduction mentioned in the preceding paragraph.
>
> If the goods have not been sold before presentation in the customs of the application to pay duty, and should a dispute arise between customs and importer regarding the value or classification of goods, the case will be referred to a board of arbitration composed as follows: An official of the customs; a merchant selected by the consul of the importer; and a merchant, differing in nationality from the importer, selected by the senior consul. Questions regarding procedure, etc., which may arise during the sittings of the board shall be decided by the majority. The final finding of the majority of the board, which must be announced within 15 days of the reference (not including holidays), will be binding upon both parties. Each of the two merchants on the board will be entitled to a fee of 10 Haikwan taels. Should the board sustain the customs valuation, or, in the event of not sustaining that valuation, should it decide that the goods have been undervalued by the importer to the extent of not less than 7½ per cent, the importer will pay the fees; if otherwise, the

fees will be paid by the customs. Should the board decide that the correct value of the goods is 20 per cent (or more) higher than that upon which the importer originally claimed to pay duty, the customs authorities may retain possession of the goods until full duty has been paid and may levy an additional duty equal to four times the duty sought to be evaded.

In all cases invoices, when available, must be produced if required by the customs.

In addition to the import duties, importers at Shanghai are called upon to pay 2 per cent of the amount of the duty, or a surtax of 2 per cent on the duty as wharfage dues and a 3 per cent surtax on the duty as a conservancy tax. At Hankow there is an added assessment of 7 per cent of the duty. At Tientsin there is a surtax of 4 per cent on the duty, which goes to river conservancy work. Several other ports have similar surtaxes collected for similar purposes.

The following goods are not liable to import duty: Foreign rice, cereals, and flour; gold and silver, both bullion and coin; printed books, charts, maps, periodicals, and newspapers.

PROHIBITION ON IMPORTATION OF ARMS AND MUNITIONS.

Except at the requisition of the Chinese Government, or for sale to Chinese duly authorized to purchase them, import trade is prohibited in all arms, ammunition, and munitions of war of every description. No permit to land them will be issued until the customs have proof that the necessary authority has been given to the importer. Infraction of this rule will be punishable by confiscation of all the goods concerned. The importation of salt is absolutely prohibited.

EXEMPTION CERTIFICATES.

Imported goods upon which duty has been paid, whether in the original package or not, may be transported to other treaty ports upon exemption certificates, issued free of charge by the customs, without further duty impositions. If no exemption certificate accompanies goods upon arrival at the port of destination the regular import duty will be charged.

TRANSIT PASSES.

Imported goods of foreign manufacture when shipped into the interior—that is, to a nontreaty port (see list of treaty ports on p. 130, and note that Peking, the capital, is not a treaty port)—may be accompanied by a transit pass which exempts them from duties and tax exactions while in transit and until arrival at destination. This transit tax is assessed at an ad valorem rate of 2½ per cent, or one-half of the amount of the import duty, not including surtaxes. The transit pass must state definitely the destination. Should the goods be shipped to a place beyond the destination stated, they will be subject to internal tax exactions the same as though they had not been covered by a transit pass. There are numerous likin tax stations along all lines of transportation in the interior, and goods not covered by transit passes are subject to being held up at the tax barriers or likin stations and taxed; the amount of such taxes in the aggregate may not, in all cases, exceed the amount of the transit tax, but the delays and expenses incident to these impositions are burdensome.

Article XI of Japan's treaty of 1896 with China reads as follows:

> It shall be at the option of any Japanese subject desiring to convey duly imported articles to an inland market to clear his goods of all transit duties by payment of a commutation transit tax or duty equal to one-half of the import duty in respect of dutiable articles and 2½ per cent upon the value in respect of duty-free articles; and on payment thereof a certificate shall be issued which shall exempt the goods from all further inland charges whatsoever.

The foreign powers insist on interpreting "all further inland charges whatsoever" as covering the goods until they actually enter into consumption, while the Chinese authorities insist that this phrase be interpreted to cover the period of transit only, and constant efforts are made by them (with considerable success) to impose additional taxes, such as destination, mercantile, shop, consumption, stamp, etc., taxes on goods covered by transit passes. The foreign interests involved are obliged in numerous cases to enter protests through their consular representatives, who make representations to the Chinese authorities and who are successful, in varying degrees, depending upon the places and the circumstances, in securing the recognition of their interpretation of the significance of a transit pass. In some cases, in some parts of China, the foreign concerns shipping goods into the interior actually find it to their advantage to pay the likin tax rather than to take out a transit pass. Some of the local officials are inclined to encourage the likin tax system and will often make some special consideration to shippers to induce them to pay likin taxes rather than to take out transit passes, as the revenues from the latter are part of the customs administration's income, while the likin taxes are collected and accounted for by the local provincial officials.

Thus, so far as import duties are concerned, the American exporter to China may consider that it may cost him slightly more than 5 per cent to get his goods into a treaty port in China and an additional 2½ to 5 per cent to get them from a treaty port to a point in the interior, although if he should get caught in the meshes of the likin tax he may find that in addition to the 5 per cent import tax he or his agent or other representative may be obliged to pay as much as 5 or even 10 per cent, depending upon the locality and many other qualifying circumstances.

Goods manufactured in China from imported materials or from native produce may be shipped from a treaty port to the interior under a transit pass, provided these goods are registered with the Chinese Government for this purpose. Application must be made to the Chinese Government through the consular official of the national concerned, giving full particulars. The tax levied will be at the rate of about 5 per cent of the cost of the manufactured article, the regular import duties having been paid on the goods imported for use in the manufacture of the article in question. Without this pass the duty charges would be 5 per cent for export from the port and 2½ per cent at destination, or 2½ per cent greater than otherwise.

DUTY ON NATIVE GOODS EXPORTED.

Native goods exported from a treaty port in China pay 5 per cent export duty or a duty in accordance with the schedule as attached to the British treaty of 1858; a copy of this schedule begins on page 103. When goods are shipped from a point in the interior to a treaty port for export an additional 2½ per cent is paid into the Native Customs (as distinguished from the Maritime Customs). In order to facilitate the shipment of goods from the interior into a treaty port in preparation for export, blank customs passes are issued by the customs to properly certified foreign firms, which send them to the native buyers in the interior. The required information is filled in when the shipment is made, and goods shipped under these passes are exempted from the payment of likin or other internal tax charges. Goods requiring cleaning or reconditioning involving a loss in weight generally pay more than 7½ per cent, as the 2½ per cent collected by the Native Customs is based on gross weight while the 5 per cent collected by the Maritime Customs at port of export is based upon net weight. Japanese cotton mills in Japan are able, through this system of export duties, to get raw cotton out of China more cheaply than the Chinese can under ordinary circumstances get their raw cotton to their own mills, because of the excessive likin and other internal tax exactions on native trade. The Japanese exporter pays 0.35 tael export tax, while the Chinese mill owner pays 0.525 tael tax to get the Chinese-grown cotton to his mill.

REFUND ON GOODS REEXPORTED.

Provision is made in the customs administration for a refund of the customs duty paid on goods reexported, provided the goods as reexported are in their original packages and under their original markings and reexportation is effected within three years from the date of importation. If the original packing is destroyed, no drawback is allowed, but the goods may be exported without the payment of an export duty. Drawback credits are negotiable and acceptable for payment of duties.

BONDED CARGO.

If applications are not entered with the customs for goods or payment of duty is not effected within 15 days after their arrival, they must enter bond either through the agents or the consignees. Bonded cargo may be released upon the payment of a fee of 5 taels for each invoice in addition to duties and storage dues. The time limit for storage in bonded warehouses is 12 months, and storage charges are determined by the nature of the article stored, the charges being, however, quite reasonable. The warehouses are privately owned.

CUSTOMS UNITS OF CURRENCY, WEIGHTS, AND MEASURES.

Because of the lack of a uniform currency or a uniform standard of weights and measures, the foreign powers in treaty negotiations with China fixed the units of currency and weight for customs purposes. All duties are payable on the basis of the Haikwan tael, a fictitious unit, equal to 584 grains of silver of 992.3 fineness. A tael is a Chinese ounce equal to 1⅓ ounces avoirdupois of silver. The value of the Haikwan tael on July 1, 1919, was $1.33 gold, as compared with $0.65 in 1908. The Chinese currency is on a decimal basis, the mace being one-tenth of a tael, the candareen one-tenth of a mace, and the cash one-tenth of a candareen. The duties are paid in local taels, of which each port has its own, or in Mexican dollars, converted into Haikwan or customs taels at the prevailing bank rates of the day. Weights are on the basis of the picul, 133⅓ pounds, the catty, 1⅓ pounds, and the liang, 1⅓ ounces, avoirdupois. One Chinese chang is equal to 10 Chinese feet, or 141 English inches. One Chinese chih is equal to one-tenth of a chang, or 14.1 English inches. These, then, are the weights and measures fixed for customs purposes for the whole of China, but not those that are current throughout China otherwise.

BIBLIOGRAPHICAL REFERENCES.

For information of a more detailed character regarding the Chinese customs, the reader is referred to "The Tariff Problem in China," by Chin-Chu, Ph. D., Columbia University Studies, 1916, Longmans, Green & Co., agents. For copies of documents used in China customs practice, see Chao-Sin-San's "Handbook of Business Training," 1917, the Commercial Press (Ltd.), Shanghai. Articles IV, V, VI, and VIII of the American commercial treaty with China, dated October, 1903, define in part America's relations with the Chinese customs tariff (see p. 34).

TEXT OF REVISED IMPORT TARIFF.

There is given below the complete text of the revised import tariff for China, representing the result of the labors of the Tariff Revision Conference which concluded its sittings at Shanghai in December, 1918. Before the new tariff is formally recognized as binding in its effect on American trade with China it is necessary that it be embodied in a convention between China and the United States. In this connection it should be noted, however, that the British Board of Trade Journal for July 3, 1919, contained the following statement with regard to its enforcement: "The Board of Trade is in receipt, through the Foreign Office, of telegraphic information from His Majesty's Minister at Peking to the effect that the revised tariff was to be publicly notified in China on July 1 and will be enforced from the 1st of August at treaty ports and certain frontier customs stations."

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	COTTON AND COTTON GOODS.			
	Cotton piece goods, grey:			
1	Grey shirtings and sheetings, not over 40 inches by 41 yards—			
	(a) Weight 7 pounds and under	Piece	1.817	0.091
	(b) Weight over 7 pounds and not over 9 pounds.	do	2.681	.13
	(c) Weight over 9 pounds and not over 11 pounds.	do	3.530	.18
2	Grey shirtings and sheetings, not over 40 inches by 41 yards and with more than 110 threads per square inch—			
	(a) Weight over 11 pounds and not over 12½ pounds	do	3.933	.20
	(b) Weight over 12½ pounds and not over 15½ pounds.	do	4.668	.23
	(c) Weight over 15½ pounds	do	5.400	.27
3	Grey shirtings and sheetings, not over 40 inches by 41 yards and with 110 threads or less per square inch—			
	(a) Weight over 11 pounds and not over 15½ pounds.	do	3.293	.16
	(b) Weight over 15½ pounds	do	4.000	.20

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	COTTON AND COTTON GOODS—continued.			
4	Drills and jeans, grey, not over 31 inches by 31 yards	Piece	2.960	0.15
5	Drills and jeans, grey, not over 31 inches by 41 yards—			
	(a) Weight 12¾ pounds and under	do.	3.900	.20
	(b) Weight over 12¾ pounds	do.	3.215	.16
6	T-cloths, grey, not over 34 inches by 25 yards—			
	(a) Weight 7 pounds and under	do.	1.722	.086
	(b) Weight over 7 pounds	do.	2.312	.12
7	T-cloths, grey, over 34 inches but not over 37 inches by 25 yards	do.	2.900	.15
8	Imitation native cotton cloth (including machine made), grey, not over 24 inches wide and with not more than 110 threads per square inch.	Picul	32.400	1.60
9	Cotton flannel or flannelette of plain or twill weave, grey—			
	(a) Not over 32 inches by 31 yards	Piece	3.484	.17
	(b) Over 32 inches but not over 40 inches by 31 yards.	do.	4.800	.24
	Cotton piece goods, white or dyed (irrespective of finish):			
10	Plain white shirtings and sheetings, not over 37 inches by 42 yards.	do.	4.183	.21
11	White irishes not over 37 inches by 42 yards	do.	5.096	.25
12	Drills and jeans, white, not over 31 inches by 32 yards	do.	3.296	.16
13	Drills and jeans, white, not over 31 inches by 42 yards	do.	4.348	.22
14	T-cloths, white, and mexicans, not over 32 inches by 41 yards.	do.	3.614	.18
15	Dimities, piques, vestings, quiltings, and bedford cords, white, not over 30 inches by 30 yards.	do.	4.749	.24
16	Cambrics, lawns, and muslins, white, plain, not over 46 inches by 12 yards.	do.	.810	.041
17	Cambrics, lawns, and muslins, white, figured, not over 46 inches by 12 yards.	Value	(1)	....
18	Cambrics, lawns, and muslins, dyed, plain or figured, not over 46 inches by 12 yards.	do.	(1)	....
19	White or dyed plain or figured muslins, lawns, cambrics, limbrics, pongees, brocades, and striped, spotted, corded, and figured shirtings—			
	(a) Not over 30 inches by 31 yards	Piece	4.443	.22
	(b) Over 30 inches but not over 37 inches by 42 yards.	do.	5.000	.25
20	Lenos, white or dyed, not over 31 inches by 30 yards	do.	2.161	.11
21	Leno brocades, white or dyed	Value	(1)	....
22	Dyed shirtings and sheetings, plain—			
	(a) Not over 30 inches by 33 yards	Piece	2.7555	.14
	(b) Not over 30 inches and over 33 yards but not over 43 yards.	do.	3.5905	.18
	(c) Not over 36 inches by 21 yards	do.	2.1048	.11
	(d) Not over 36 inches and over 21 yards but not over 33 yards.	do.	3.3075	.17
	(e) Not over 36 inches and over 33 yards but not over 43 yards.	do.	4.3098	.22
23	Dyed drills and jeans, plain—			
	(a) Not over 31 inches by 33 yards	do.	3.600	.18
	(b) Not over 31 inches and over 33 yards but not over 43 yards.	do.	4.676	.23
24	Dyed T-cloths, embossed cantoons, alpacianos, real and imitation turkey reds, not over 32 inches by 25 yards—			
	(a) Weight 3½ pounds and under	do.	1.889	.094
	(b) Weight over 3½ pounds but not over 5½ pounds	do.	2.400	.12
	(c) Weight over 5½ pounds	do.	3.320	.17
25	Mercerized crimps, white, dyed, or printed, plain or figured, not over 32 inches by 32 yards.	do.	5.478	.27
26	Oatmeal crêpes, white or dyed, plain or figured, not over 33 inches by 33 yards.	do.	5.265	.26
27	Cotton crêpe (excluding oatmeal crêpes), grey, bleached, dyed, printed, or dyed in the yarn—			
	(a) Not over 15 inches wide	Value	(1)	....
	(b) Over 15 inches but not over 30 inches wide	Yard	.106	.005
28	Lastings, italians, satteens, ribs, cords, moreens, Beatrice twills, Tientsin twills, satteen drills, satteen stripes, repps, and imitation (weft-faced) venetians, white or dyed, plain or figured, not over 33 inches by 33 yards.	Piece	4.540	.23
29	Poplins and venetians, white or dyed, plain, not over 33 inches by 33 yards.	do.	8.0946	.403

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[1] 5 per cent.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	COTTON AND COTTON GOODS—continued.			
30	Poplins and venetians, white or dyed, figured, not over 33 inches by 33 yards.	Piece	10.000	0.50
31	Cotton flannel or flannelette of plain or twill weave—			
	(1) White, dyed, or printed, or dyed in the yarn, exclusive of duplex or reversible prints—			
	(*a*) Not over 25 inches by 15 yards	.....do	1.400	.07
	(*b*) Over 25 inches but not over 30 inches by 15 yards.	.....do	1.700	.085
	(*c*) Over 25 inches but not over 30 inches by 31 yards.	.....do	3.000	.18
	(*d*) Over 30 inches but not over 36 inches by 15 yards.	.....do	2.000	.10
	(*e*) Over 30 inches but not over 36 inches by 31 yards.	.....do	4.300	.22
	(2) Duplex or reversible prints	Value	([1])	....
32	Dyed cotton Spanish stripes—			
	(*a*) Not over 32 inches by 20 yards	Piece	2.241	.11
	(*b*) Over 32 inches but not over 64 inches by 20 yards.	.....do	4.482	.22
33	Dyed cotton velvets and velveteens, plain, not over 26 inches wide.	Yard	.2884	.014
34	Cotton velvets and velveteens, printed, figured, or embossed, velvet and velveteen cords, corduroys, fustians, moleskins, and plushes.	Value	([1])	....
35	Canvas, cotton (including cotton duck), for sails, etc.	Yard	.300	.015
36	Stockinet or knitted tissue—			
	(*a*) Raised	Picul	44.000	2.20
	(*b*) Not raised	Value	([1])	....
	Cotton piece goods, printed:			
37	Printed cambrics, printed lawns, printed muslins, printed shirtings, printed sheetings, printed T-cloths (including those known as blue and white printed T-cloths), printed drills, printed jeans, printed diagonal twills, twill cretonnes, printed silesias, printed repps (excluding repp cretonnes)—			
	(*a*) Not over 20 inches wide	.....do	([1])	....
	(*b*) Over 20 inches but not over 46 inches by 12 yards.	Piece	1.020	.051
	(*c*) Over 20 inches but not over 32 inches by 30 yards.	.....do	2.302	.12
	(*d*) Over 32 inches but not over 42 inches by 30 yards.	.....do	3.094	.15
	Printed mercerized crimps. See No. 25.			
38	Printed oatmeal crêpes and oatmeal crêpe cretonnes, not over 32 inches by 30 yards.	.....do	2.705	.14
	Printed cotton crêpe. See No. 27.			
39	Printed turkey reds, real and imitation, not over 31 inches by 25 yards.	.....do	2.068	.10
40	Printed lenos, not over 31 inches by 30 yards	.....do	2.350	.12
41	Printed satteens and satinets, printed brocades (including printed fancy woven stripes or checks), printed Italians, printed damasks, printed venetians, printed lastings, printed Beatrice twills, printed cords, printed poplins, printed moreens, not over 32 inches by 30 yards.	.....do	5.000	.25
	Printed flannelette. See No. 31.			
42	Duplex or reversible prints of shirting weave and one color only, not over 32 inches by 30 yards.	.....do	3.000	.15
	Printed velvets and velveteens. See No. 34.			
43	Printed domestic cretonnes, printed satteen cretonnes, printed repp cretonnes, printed embossed figures, printed art muslins and casement cloth, printed cotton coatings, trouserings, and gabardines, and all other duplex or reversible prints except those enumerated in classes 37 and 42.	Value	([1])	....
	Printed blankets. See No. 45.			
	Printed handkerchiefs. See No. 48.			
	The term "Printed" in this tariff includes pigment style, direct printing style, steam style, discharge style, madder or dyed style, resist style, resist pad style, metal style, and so forth, irrespective of finish.			
	The term "Duplex or reversible print" in this tariff includes all printed cottons having (*a*) a different pattern printed on each side of the cloth, (*b*) the same design on both sides of the cloth, whether printed with one or more rollers.			

[1] 5 per cent.

Number.[1]	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	COTTON AND COTTON GOODS—continued.			
	Cotton piece goods, yarn-dyed:			
	Cotton crêpe. See No. 27.			
	Cotton flannel, or flannelette. See No. 31.			
	Stockinet. See No. 36.			
	Not otherwise enumerated	Value	(1)	....
	Cotton piece goods, not otherwise enumerated	....do	(1)	....
	Cotton, raw; cotton thread, cotton yarn, and goods made of cotton:			
44	Ankle bands, plain or decorated	Picul	80.000	4.00
	Bags, new. See No. 529	....do	40.000	2.00
45	Blankets, plain, printed, or jacquard (including those with a taped or whipped edge of silk or other material), and blanket cloth.	....do	40.000	2.00
	Canvas. See No. 35.			
	Crêpe. See No. 27.			
46	Counterpanes, honeycomb or alhambra—			
	(a) Not over 2¼ yards long	....do	45.000	2.25
	(b) Over 2¼ yards long	Value	(1)	....
47	Embroidered edging or insertion, machine-made	....do	(1)	....
	Flannelette. See No. 31.			
48	Handkerchiefs, neither embroidered nor initialed—			
	(1) White, dyed, or printed, hemmed (but not with a drawn-thread hem)—			
	(a) Not over 13 inches square	Dozen	.220	.011
	(b) Over 13 inches square but not over 18 inches square.	....do	.360	.018
	(c) Over 18 inches square but not over 30 inches square.	....do	.530	.027
	(2) White, dyed, or printed, with drawn-thread hem—			
	(a) Not over 13 inches square	....do	.360	.018
	(b) Over 13 inches square but not over 18 inches square.	....do	.750	.038
	(c) Over 18 inches square but not over 30 inches square.	....do	.920	.046
	(3) Printed handkerchiefs, unhemmed—			
	(a) Not over 18 inches square	....do	.190	.01
	(b) Over 18 inches square but not over 25 inches square.	....do	.640	.032
	(c) Over 25 inches square but not over 29 inches square.	....do	.800	.04
	(d) Over 29 inches square but not over 34 inches square.	....do	1.030	.052
49	Knitted clothing, raised (including that stitched with silk thread and with facings of silk or other material).	Picul	74.000	3.70
50	Raw cotton	....do	16.000	.80
51	Singlets or drawers, not raised (including those stitched with silk thread and with facings of silk or other material).	Dozen	2.800	.14
52	Socks and stockings—			
	(a) Not raised on either side—			
	(1) Made of ungassed or unmercerized thread.	Picul	70.000	3.50
	(2) Made of gassed or mercerized thread or stitched or embroidered with silk.	....do	150.000	7.50
	(b) Raised	Value	(1)	....
	(c) Others	....do	(1)	....
	Stockinet. See No. 36.			
53	Towels—			
	(a) Turkish	Picul	50.000	2.50
	(b) Honeycomb or huckaback	....do	44.000	2.20
54	Thread, dyed or undyed (irrespective of finish)—			
	(1) Sewing cotton—			
	(a) In balls or skeins—			
	3-cord	....do	100.000	5.00
	6-cord	....do	190.000	9.50
	(b) On spools or cops—			
	2-cord, 50 yards or less	Gross	.586	.029
	3-cord, 50 yards or less	....do	.788	.039
	6-cord, 50 yards or less	....do	1.458	.073
	Other lengths in proportion.			
	(2) Crochet or embroidery cotton in skeins or balls.	Picul	82.449	4.10
55	Waste cotton	....do	9.600	.48

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[1] 5 per cent.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	COTTON AND COTTON GOODS—continued.			
	Cotton, raw, etc.—Continued.			
56	Yarn—			
	(1) Grey (irrespective of fold);—			
	(*a*) Counts up to and including 17	Picul	25.500	1.28
	(*b*) Counts above 17 and up to and including 23.	....do	27.668	1.38
	(*c*) Counts above 23 and up to and including 35.	....do	38.000	1.90
	(*d*) Counts above 35 and up to and including 45.	....do	43.600	2.18
	(*e*) Counts above 45	Value	(1)	....
	(2) Dyed, bleached, gassed, mercerized, etc	....do	(1)	....
	FLAX, HEMP, AND JUTE GOODS.			
	Gunny bags:			
57	New	Picul	8.480	.42
58	Old	Value	(1)	....
59	Hemp	Picul	14.000	.70
	Hemp or Hessian bags:			
60	New	....do	18.900	.95
61	Old	Value	(1)	....
62	Hessian cloth	Picul	18.000	.90
63	Canvas of hemp and jute for sails, etc	Yard	.38165	.019
64	Canvas, linen (elastic), for tailoring	Value	(1)	....
65	Tarpaulin of hemp or jute	Yard	.229	.011
	SILK GOODS AND SILK MIXTURES.			
66	Silk piece goods (all silk), plain, figured, or brocaded	Value	(1)	....
67	Silk plushes and silk velvets, pure	Catty	10.984	.55
68	Silk seal, with cotton back	....do	2.9418	.15
69	Silk socks and stockings, knitted (including those made of artificial silk).[2]	....do	7.000	.35
70	Silk mixture plushes and velvets (i. e., made of silk mixed with other fibrous material, with cotton back).	....do	2.6537	.13
71	Silk and cotton satins, white or dyed in the piece:[2]			
	(*a*) Plain	....do	2.533	.13
	(*b*) Figured	....do	3.233	.16
72	Silk and cotton satins, dyed in the yarn[2]	....do	4.000	.20
73	Silk and cotton mixtures not otherwise enumerated	Value	(1)	....
74	Silk ribbons, all silk and mixtures	....do	(1)	....
	WOOL AND COTTON UNIONS.			
75	Union shirtings, not over 33 inches wide	Yard	.4853	.024
76	Cloth made of remanufactured wool and cotton, such as meltons, vicunas, beavers, army cloths, union cloths, leather cloths, presidents (including cloth containing a small quantity of new wool for facing purposes), not over 56 inches wide.	....do	.800	.04
77	Italian cloth, plain or figured, alpacas, lustres, orleans, and sicilians.	Value	(1)	....
	WOOL AND WOOLEN GOODS.			
78	Wool, sheep's	Picul	17.000	.85
79	Blankets and rugs	Pound	.560	.028
80	Bunting, not over 24 inches by 40 yards	Piece	6.560	.33
81	Camlets, not over 31 inches by 62 yards	....do	15.600	.78
82	Flannel, not over 33 inches wide	Yard	.480	.024
83	Lastings, plain, figured, or crêped, not over 31 inches by 32 yards.	Piece	14.620	.73
84	Llama braid	Picul	150.000	7.50
85	Long ells, not over 31 inches by 25 yards	Piece	6.657	.33
86	Russian, broad, superfine, medium, and habit cloth, not over 76 inches wide.	Yard	1.520	.076
87	Spanish stripes, not over 64 inches wide	....do	.636	.032
88	All woolen and worsted yarn and cord, including Berlin wool.	Picul	120.000	6.00
	METALS.			
89	Aluminum	Value	(1)	....
90	Aluminum sheets	....do	(1)	....
91	Antifriction metal	....do	(1)	....

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[1] 5 per cent.

[2] The French delegation stated that it could not agree to the duty treatment proposed for these goods until it had referred the question to its Government.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	METALS—continued.			
	Antimony:			
92	Regulus and refined	Picul	14.000	0.70
93	Ore	Value	(1)	
	Brass and yellow metal:			
94	Bars and rods	Picul	30.183	1.50
95	Bolts, nuts, rivets, washers, and accessories	Value	(1)	
96	Ingots	Picul	30.183	1.50
97	Nails	do	36.765	1.80
98	Old (fit only for remanufacture)	Value	(1)	
99	Screws	do	(1)	
100	Sheets and plates	Picul	30.183	1.50
101	Tubes	do	47.809	2.40
102	Wire	do	30.183	1.50
	Copper:			
103	Bars and rods	do	33.950	1.70
104	Bolts, nuts, rivets, and washers	Value	(1)	
105	Ingots and slabs	Picul	28.000	1.40
106	Nails	do	47.385	2.40
107	Old (fit only for remanufacture)	Value	(1)	
108	Sheets and plates	Picul	33.950	1.70
109	Tacks	Value	(1)	
110	Tubes	do	(1)	
111	Wire	Picul	33.950	1.70
112	Wire cable	Value	(1)	
113	Wire rope	do	(1)	
	Iron and steel, ungalvanized (not including bamboo, spring, and tool steel):			
114	Anvils, swage blocks, anchors, and parts of, and forgings (each weighing in every case 25 pounds or over).	Picul	11.484	.57
115	Bolts, nuts, and washers	Value	(1)	
116	Castings, rough	Picul	5.132	.26
117	Chains, and parts of	do	7.667	.38
118	Cobbles, wire shorts, defective wire, bar croppings, and bar ends, galvanized or ungalvanized.	do	2.658	.13
119	Crossings for railways	Value	(1)	
120	Fish plates and spikes	do	(1)	
121	Hoops	Picul	5.451	.27
122	Old (fit only for remanufacture)	do	1.946	.10
123	Nail-rod bars, twisted or deformed bars, tees, channels, angles, joists, girders, and other structural sections or shapes.	do	4.080	.20
124	Nails, wire and cut	do	5.946	.30
125	Pig and kentledge	do	2.000	.10
126	Pipes, tubes, and pipe and tube fittings	Value	(1)	
127	Plate cuttings	Picul	2.311	.12
128	Rails	do	3.120	.16
129	Rivets	do	6.287	.31
130	Screws	Value	(1)	
	Sheets and plates—			
131	¼ of an inch thick or more	Picul	4.000	.20
132	Under ¼ of an inch thick	do	5.000	.25
133	Tacks	do	9.047	.45
134	Wire	do	5.241	.26
135	Wire rope, galvanized or ungalvanized, with or without fiber core.	do	14.924	.75
	Steel, tool and spring:			
136	Bamboo steel	Picul	5.486	.27
137	Spring steel	do	6.420	.32
138	Tool steel (including high-speed steel)	Value	(1)	
	Iron and steel, galvanized:			
139	Bolts, nuts, rivets, and washers	do	(1)	
140	Pipes, tubes, and tube fittings	do	(1)	
141	Screws	do	(1)	
142	Sheets, corrugated and plain	Picul	7.400	.37
143	Wire	do	6.072	.30
	Wire rope. See ungalvanized.			
	Wire shorts. See ungalvanized.			
144	Iron and tin dross	do	6.000	.30
	Lead:			
145	Old (fit only for remanufacture)	Value	(1)	
146	Pigs or bars	Picul	9.000	.40
147	Pipe	do	9.961	.55
148	Sheet	do	11.884	.50
149	Wire	Value	(1)	

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[1] 5 per cent.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	METALS—continued.			
150	Manganese	Value	(1)	....
151	Manganese, ferro	do	(1)	....
152	Nickel	Picul	70.000	3.50
153	Quicksilver	do	126.654	6.30
	Tin:			
154	Compound	Value	(1)	....
155	Dross and refuse	Picul	10.885	.54
156	Ingots and slabs	do	45.462	2.30
157	Pipe	Value	(1)	....
158	Sheet	Picul	41.208	2.10
159	Tinned tacks	do	9.047	.45
	Tinned plates:			
160	Decorated	do	10.176	.51
161	Plain	do	7.800	.39
162	Old	Value	(1)	....
163	Type metal	do	(1)	....
	White metal or German silver:			
164	Bars, ingots, and sheets	Picul	54.531	2.70
165	Wire	do	43.444	2.20
	Zinc:			
166	Powder and spelter	do	12.946	.65
167	Sheets (including perforated), plates, and boiler plates.	do	16.849	.84
	FISHERY AND SEA PRODUCTS.			
168	Agar-agar	do	6.000	.30
169	Awabi, in bulk	do	52.500	2.60
	Bicho de mar:			
	Black—			
170	Spiked	do	53.300	2.70
171	Not spiked	do	40.000	2.00
172	White	do	20.000	1.00
	Cockles:			
173	Dried	do	13.822	.69
174	Fresh	do	1.200	.06
175	Compoy	do	43.000	2.15
176	Crabs' flesh, dried	do	16.518	.83
	Fish:			
177	Bones	Value	(1)	....
178	Cod, dried	Picul	5.800	.29
179	Cuttle	do	13.600	.68
180	Dried and smoked (not including dried codfish and cuttle fish).	do	9.739	.49
181	Fresh	do	6.410	.32
	Maws—			
182	First quality (i. e., weighing 1 catty or over per piece).	Catty	5.000	.25
183	Second quality (i. e., weighing under 1 catty per piece).	Picul	56.500	2.80
184	Salmon bellies	Value	(1)	....
185	Salt	Picul	3.600	.18
186	Skin	do	12.711	.64
187	Mussels, oysters, and clams, dried	do	16.000	.80
188	Prawns and shrimps, dried, in bulk	do	22.000	1.10
	Seaweed:			
189	Cut	do	3.334	.17
190	Long	do	2.500	.13
191	Prepared	do	26.000	1.30
192	Red	Value	(1)	....
	Sharks' fins:			
193	Dorsal and tail	Picul	88.660	4.40
194	Breast fins	do	37.173	1.90
195	Prepared	do	128.562	6.40
196	Sharks' skins	Value	(1)	....
	ANIMAL PRODUCTS, CANNED GOODS, AND GROCERIES.			
197	Bacon and hams, in bulk	Picul	35.300	1.80
198	Baking powder	Value	(1)	....
199	Beef, corned or pickled, in barrels	do	(1)	....
	Birds' nests:			
200	Black (including clarified refuse)	Catty	3.000	.15
201	White	do	18.000	.90
202	Butter	Picul	53.276	2.70

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[1] 5 per cent.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	ANIMAL PRODUCTS, CANNED GOODS, AND GROCERIES—continued.			
	Canned goods:			
203	Asparagus	Picul (including weight of immediate packing).	17.500	0.88
204	Awabi	do.	24.000	1.20
205	Cream and milk, evaporated or sterilized	do.	13.000	.65
206	Fruits, table and pie	do.	14.500	.73
207	Milk, condensed	do.	19.200	.96
208	Canned goods, unenumerated	Value	(1)	
209	Chocolate	do.	(1)	
210	Cocoa	do.	(1)	
211	Coffee	do.	(1)	
212	Currants, and raisins, in bulk	Picul	12.677	.63
213	Fruits, preserved, in glass, etc	Value	(1)	
214	Honey	do.	(1)	
215	Jams and jellies	do.	(1)	
216	Lard, in bulk	do.	(1)	
217	Macaroni and vermicelli, in bulk	Picul	9.125	.46
218	Margarine	Value	(1)	
219	Meats, dried and salted	do.	(1)	
220	Pork rind	do.	(1)	
221	Sausages, dry	do.	(1)	
222	Soy	Picul	5.000	.25
223	Tea	Value	(1)	
	CEREALS, FRUITS, MEDICINAL SUBSTANCES, SEEDS, SPICES, AND VEGETABLES.			
224	Aniseed, star:			
	(a) First quality, value 15 taels and over, per picul	Picul	20.000	1.00
	(b) Second quality, value under 15 taels, per picul	do.	9.000	.45
225	Apples, fresh	do.	5.000	.25
226	Asafetida	Value	(1)	
227	Barley, pearl	do.	(1)	
228	Beans and peas	do.	(1)	
229	Betelnuts, dried	Picul	4.700	.24
230	Betelnut husk, dried	do.	2.300	.12
231	Bran	do.	1.600	.08
232	Cereals and flour (including barley, maize, millet, oats, paddy, rice, wheat, and flour made therefrom; also buckwheat and buckwheat flour, corn flour and yellow corn meal, rye flour, and hovis flour; but not including arrowroot and arrowroot flour, cracked wheat, germea hominy, pearl barley, potato flour, Quaker oats, rolled oats, sago and sago flour, shredded wheat, tapioca and tapioca flour, and yam flour).		(2)	
	Camphor:			
233	Crude and refined (including shaped)	Picul	66.000	3.30
	Baroos—			
234	Clean	Catty	62.000	3.10
235	Refuse	Value	(1)	
236	Capoor cutchery	do.	(1)	
237	Cardamom husk	Picul	5.000	.25
	Cardamoms:			
238	Inferior	do.	20.000	1.00
239	Superior	do.	200.000	10.00
	Cassia:			
240	Lignea and buds	do.	18.000	.90
241	Twigs	do.	3.600	.18
242	Chestnuts	Value	(1)	
243	China root	Picul	14.000	.70
244	Cinnamon, in bulk	do.	100.000	5.00
	Cloves:			
245	In bulk	do.	18.000	.90
246	Mother	do.	8.000	.40
247	Cocaine	Value	(1)	
248	Galangal	Picul	3.700	.19
249	Ginseng:			
	Clarified or cleaned—			
	First quality (value over 25 Haikwan taels per catty).	Catty	56.000	2.80
	Second quality (value over 11 taels and not over 25 taels per catty).	do.	22.000	1.10
	Third quality (value over 3 taels and not over 11 taels per catty).	do.	7.200	.36
	Fourth quality (value not over 3 taels per catty).	do.	1.800	.09
250	Crude, beard, roots, and cuttings—			
	First quality (value over 3 taels per catty)	do.	4.400	.22
	Second quality (value not over 3 taels per catty).	do.	1.700	.085
251	Wild	Value	(1)	

[1] 5 per cent.

[2] Free.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	CEREALS, FRUITS, MEDICINAL SUBSTANCES, SEEDS, SPICES, AND VEGETABLES—continued.			
	Groundnuts:			
252	In shell	Picul	3.000	0.15
253	Shelled	do.	4.600	.23
254	Hops	Value	(1)	....
255	Isinglass, vegetable	Picul	53.000	2.70
256	Lemons, fresh	Thousand	29.000	1.50
257	Lichees, dried	Picul	10.600	.53
258	Lily flowers, dried	do.	9.400	.47
259	Lungngan pulp	do.	13.000	.65
260	Lungngans, dried	do.	7.000	.38
261	Malt	do.	8.102	.41
262	Morphia in all forms	Value	(1)	....
263	Mushrooms	Picul	47.000	2.40
264	Nutmegs	do.	30.000	1.50
265	Olives	Value	(1)	....
266	Opium, tincture of	do.	(1)	....
267	Oranges, fresh	Picul	3.600	.18
268	Peel, orange, in bulk	do.	13.000	.65
	Pepper:			
269	Black	do.	19.400	.97
270	White	do.	32.000	1.60
271	Potatoes, fresh	Value	(1)	....
272	Putchuck	Picul	38.000	1.90
	Seed:			
273	Apricot	do.	26.800	1.30
274	Lily flower (i. e., lotus nuts without husks)	do.	20.000	1.00
275	Lucraban	do.	7.000	.35
276	Melon	do.	11.000	.55
277	Pine (i. e., fir nuts)	do.	4.800	.24
278	Sesamum	do.	4.800	.24
279	Vegetables, dried, prepared, and salted	Value	(1)	....
	SUGAR.			
	Sugar:			
280	Brown, under No. 11 Dutch standard, and "green sugar."	Picul	4.400	.22
281	White, over No. 10 Dutch standard (including refined sugar).	do.	6.200	.31
282	White, cube and loaf	do.	10.000	.50
283	Candy	do.	7.400	.37
284	Cane	do.	1.000	.05
	WINES, BEER, SPIRITS, TABLE WATERS, ETC.			
285	Champagne and any other wine sold under the label "champagne."	Case of 12 bottles or 24 half-bottles.	20.000	1.00
286	Sparkling Asti	do.	10.000	.50
287	Other sparkling wines	do.	12.000	.60
288	Still wines, red or white, exclusively the produce of the natural fermentation of grapes (not including vins de liqueur):			
	(1) In bottles	Case of 12 bottles or 24 half-bottles.	6.000	.30
	(2) In bulk	Imperial gallon	.700	.035
	Port wine:			
289	In bottles	Case of 12 bottles or 24 half-bottles.	14.000	.70
290	In bulk	Imperial gallon	3.500	.18
	Marsala:			
291	In bottles	Case of 12 bottles or 24 half-bottles.	8.000	.40
292	In bulk	Imperial gallon	2.000	.10
293	Vins de liqueur other than port and marsala (viz., Madeira, Malaga, Sherry, etc.):			
	(1) In bottles	Case of 12 bottles or 24 half-bottles.	10.000	.50
	(2) In bulk	Imperial gallon	3.000	.15
294	Vermouth, byrrh, and quinquina	Case of 12 liters	5.800	.29
	Sake:			
295	In barrels	Picul	8.200	.41
296	In bottles	12 reputed quarts or 24 reputed pints.	2.000	.10
297	Ale, beer, cider, perry, and similar liquors made of fruits and berries:			
	(1) In bottles	do	1.580	.079
	(2) In casks	Imperial gallon	.540	.027

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[1] 5 per cent.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	WINES, BEER, SPIRITS, TABLE WATERS, ETC.—continued.			
	Porter and stout:			
298	In bottles	12 reputed quarts or 24 reputed pints.	2.560	0.128
299	In casks	Imperial gallon	.550	.028
300	Brandy, cognac, and whisky, in bulk	do	2.600	.13
301	Brandy and cognac, in bottles	Case of 12 reputed quarts.	13.400	.67
302	Whisky, in bottles	do	7.000	.35
	Gin:			
303	In bottles	do	4.600	.23
304	In bulk	Imperial gallon	1.800	.09
305	Other spirits (i. e., rum, aquavit, vodka, punch, etc.):			
	(1) In bottles	Case of 12 reputed quarts.	4.000	.20
	(2) In bulk	Imperial gallon	1.800	.09
306	Liqueurs	12 reputed quarts or 24 reputed pints.	10.000	.50
307	Waters, table, aerated and mineral	12 bottles or 24 half-bottles.	1.400	.07
308	Spirits of wine and rectified spirits or alcohol	Imperial gallon	.560	.028
	TOBACCO.			
	Cigarettes:			
309	Value over 4.50 Haikwan taels per 1,000 and all cigarettes not bearing a distinctive brand or name on each cigarette.	Thousand	6.600	.33
310	Value over 3.00 taels but not over 4.50 taels per 1,000	do	3.800	.19
311	Value over 1.50 taels but not over 3.00 taels per 1,000	do	2.200	.11
312	Value 1.50 taels or less per 1,000	do	1.200	.06
313	Cigars	do	16.000	.80
314	Snuff	Value	(1)	
	Tobacco:			
315	Leaf	Picul	22.000	1.10
316	Prepared, in tins or packages under 5 pounds each	Value	(1)	
317	Prepared, in bulk (not packed in tins or tin-lined cases).	Picul	22.000	1.10
318	Stalk	do	5.600	.28
	CHEMICALS.			
	Acid:			
319	Acetic	do	30.639	1.50
320	Boracic	do	21.448	1.10
321	Carbolic	Value	(1)	
322	Hydrochloric (muriatic)	do	(1)	
323	Nitric	Picul	14.282	.71
324	Sulphuric	do	3.317	.17
	Ammonia:			
325	In bulk	do	26.513	1.30
326	Chloride of (sal ammoniac)	do	17,823	.89
327	Sulphate of	do	7.438	.37
328	Bleaching powder (chloride of lime)	do	5.469	.27
329	Borax, crude or refined	do	11,521	.58
330	Calcium, carbide of	do	7.451	.37
331	Copper, sulphate of	do	11.913	.60
332	Glycerine	do	43.930	2.20
333	Hide specific	Value	(1)	
334	Manure, animal, chemical, or artificial, not otherwise enumerated.	Picul	2.951	.15
335	Naphthalene	do	12.653	.63
336	Saltpetre	do	9.324	.47
	Soda:			
337	Ash	do	2.499	.12
338	Bicarbonate of, in bulk	do	2.899	.14
339	Caustic	do	6.200	.31
340	Crystal	do	2.659	.13
341	Crystal, concentrated	do	3.178	.16
342	Nitrate of (Chile saltpetre)	do	5.342	.27
343	Silicate of	do	3.603	.18

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[1] 5 per cent.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	DYES AND PIGMENTS.			
344	Aniline dyes not otherwise enumerated	Value	(1)	....
	Bark:			
345	Mangrove	Picul	1.682	0.084
346	Plum-tree	do	3.187	.16
347	Yellow (for dyeing)	do	4.948	.25
348	Blue, Paris or Prussian	do	34.945	1.70
349	Bronze powder	do	52.979	2.60
350	Carbon black (lampblack)	do	20.000	1.00
351	Carthamin	Value	(1)	....
352	Chrome yellow	do	(1)	....
353	Cinnabar	Picul	82.400	4.10
354	Cobalt, oxide of	Value	(1)	....
355	Cochineal	do	(1)	....
356	Cunao or false gambier	Picul	3.340	.17
357	Cutch or gambier	do	10.000	.50
358	Dyes and colors, unclassed	Value	(1)	....
359	Gamboge	Picul	56.951	2.80
360	Green, emerald, schweinfurt, or imitation	do	22.458	1.10
361	Hartall (orpiment)	do	9.562	.48
	Indigo:			
	Dried—			
362	Artificial	do	125.881	6.30
363	Natural	do	60.000	3.00
364	Liquid or paste, artificial	do	40.000	2.00
365	Liquid, natural	do	6.000	.30
366	Indoin	Value	(1)	....
367	Laka-wood	Picul	3.272	.16
368	Lead, red, white, and yellow	do	10.204	.51
369	Logwood extract	do	15.492	.77
370	Nutgalls	do	20.863	1.00
371	Ochre	do	6.545	.33
372	Safflower	do	12.908	.65
373	Sapanwood	do	2.744	.14
374	Smalt	do	40.150	2.00
375	Turmeric	do	3.938	.20
376	Ultramarine	do	13.862	.69
377	Vermilion	do	82.400	4.10
378	Vermilion, artificial	Value	(1)	....
379	White zinc	do	(1)	....
	CANDLES, GUMS, OILS, SOAP, VARNISHES, WAX, AND MANUFACTURES OF.			
380	Candles	Picul	12.600	.63
381	Candlewick	do	75.200	3.80
382	Gasolene, naphtha, and benzine, mineral:			
	(a) In bulk	10 American gallons.	3.000	.15
	(b) In case	Case of 2 tins, each of 5 American gallons.	3.500	.18
383	Grease, lubricating, wholly or partly mineral	Picul	7.000	.35
	Gum:			
384	Arabic	do	24.000	1.20
385	Benjamin	do	12.000	.60
386	Copal	do	24.000	1.20
387	Dragon's-blood	do	60.000	3.00
388	Myrrh	do	9.600	.48
389	Olibanum	do	9.600	.48
390	Resin	do	6.800	.34
391	Shellac	do	40.000	2.00
392	Sticklac	do	15.000	.75
393	Tragacanth	do	18.000	.90
	Oil:			
	Castor—			
394	Lubricating	do	12.000	.60
395	Medicinal	Value	(1)	....
396	Coconut	Picul	16.000	.80
397	Kerosene—			
	(a) In case	Case of 2 tins, each of 5 American gallons.	2.200	.11
	(b) In bulk	10 American gallons.	1.600	.08
	(c) Tins, empty	Tin	.200	.01
	(d) Case and two empty tins	Each	.540	.027

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[1] 5 per cent.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	CANDLES, GUMS, OILS, SOAP, VARNISHES, WAX, AND MANUFACTURES OF—continued.			
398	Linseed	Imperial gallon	1.200	0.06
399	Lubricating—			
	(a) Wholly or partly of mineral origin	American gallon	.300	.015
	(b) Other kinds, not otherwise enumerated	do	.500	.025
400	Olive, in bulk	Imperial gallon	2.000	.10
	Soap:			
401	Household and laundry (including blue mottled), in bulk, bars, and doublets; duty to be charged on nominal weights, provided that such weights be not less than true weight and that a bar does not weigh less than 7 ounces.	Picul	8.800	.44
402	Toilet and fancy	Value	(1)	
403	Stearine	Picul	19.600	.98
404	Turpentine:			
	(a) Mineral	Imperial gallon	.600	.03
	(b) Vegetable	do	.800	.04
	Wax:			
405	Bees, yellow	Picul	32.000	1.60
406	Paraffin	do	10.000	.50
407	Vegetable	do	15.200	.76
	PAPER, WOOD PULP, BOOKS, AND MAPS.			
	Paper:			
408	Cigarette, on bobbins	Picul (including weight of bobbin.)	40.00	2.00
409	Common printing, calendered and uncalendered, sized and unsized, white and colored.	Picul	6.40	.32
410	Marbled, enameled, and glazed flint	do	12.20	.61
411	M. G. cap, white and colored	do	6.40	.32
412	Packing and wrapping, brown or colored	do	6.40	.32
413	Printing, calendered and uncalendered, sized and unsized, white and colored (including simile and M. G. poster, but not including printing paper otherwise enumerated), free of mechanical wood pulp.	do	9.20	.46
414	Strawboard	Value	(1)	
415	Unenumerated	do	(1)	
416	Unglazed tissue and M. G. bleached sulphite, free of mechanical wood pulp.	Picul	0.00	.50
417	Writing, drawing, art printing, bank note, parchment, pergamyn, and grease-proof.	Value	(1)	
418	Wood pulp, chemical	Picul	6.00	.30
419	Wood pulp, mechanical:			
	(a) Dry	do	3.32	.17
	(b) Wet (not containing less than 40 per cent moisture).	do	1.66	.083
420	Books		(2)	
421	Charts and maps		(2)	
422	Newspapers and periodicals		(2)	
	HIDES, LEATHER, AND SKINS (FURS).			
423	Hides, buffalo and cow	Picul	22.00	1.10
	Leather:			
424	Belting	Value	(1)	
425	Calf, kid, enameled, japanned, patent, and/or colored.	Picul	300.00	15.00
426	Cow (including that for soles and harness)	do	58.00	2.90
427	Cow, enameled, japanned, and patent	do	180.00	9.00
	Skins (furs):			
428	Beaver	Value	(1)	
429	Dog	do	(1)	
430	Fox	do	(1)	
431	Fox, Arctic, white	do	(1)	
432	Fox legs	do	(1)	
433	Fox, red	do	(1)	
	Goat—			
434	Tanned	do	(1)	
435	Untanned	do	(1)	
436	Hare and rabbit	do	(1)	
437	Lamb	do	(1)	
438	Lamb, unborn	do	(1)	

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[1] 5 per cent.

[2] Free.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	HIDES, LEATHER, AND SKINS (FURS)—continued.			
	Skins (furs)—Continued.			
439	Land-otter	Value	(1)	....
440	Lynx	....do	(1)	....
441	Marten, untanned	....do	(1)	....
442	Musquash	....do	(1)	....
443	Raccoon	....do	(1)	....
444	Sable	....do	(1)	....
445	Sheep, untanned	....do	(1)	....
446	Squirrel	....do	(1)	....
447	Wolf	....do	(1)	....
	BONES, FEATHERS, HAIR, HORNS, SHELLS, SINEWS, TUSKS, ETC.			
448	Bones, tiger	Picul	56.00	2.80
449	Cow bezoar, Indian	Value	(1)	....
450	Crocodile and armadillo scales	Picul	60.00	3.00
451	Elephants' tusks, whole or parts of	Catty	3.60	.18
	Feathers:			
	Kingfisher—			
452	Whole skins	Hundred	12.00	.60
453	Part skins (*i. e.*, wings, tails, or backs)	....do	8.00	.40
454	Peacock	Value	(1)	....
	Hair:			
455	Horse	Picul	42.00	2.10
456	Horse tails	....do	50.00	2.50
	Horns:			
457	Buffalo and cow	....do	13.00	.65
458	Deer	....do	34.00	1.70
459	Deer, old	....do	140.00	7.00
460	Deer, young (northern)	Pair	50.00	2.50
461	Deer, young (southern)	Value	(1)	....
462	Rhinoceros	Catty	80.00	4.00
463	Musk	....do	180.00	9.00
464	Sea-horse teeth	Value	(1)	....
465	Sinews, cow and deer	Picul	20.00	1.00
	TIMBER.			
466	Laths	1,000 pieces	4.20	.21
	Ordinary (not including teak and other enumerated woods), rough hewn:			
467	Hardwood	1,000 superficial feet, b. m.	29.00	1.45
468	Softwood	....do	23.00	1.15
	Ordinary, sawn:			
469	Hardwood	....do	36.00	1.80
470	Softwood	....do	30.00	1.50
	Ordinary, manufactured (including any process further than simple sawing), exclusive of masts and spars:			
471	Hardwood—			
	(*a*) Clear, on net measure	....do	60.00	3.00
	(*b*) Merchantable, on net measure	....do	42.00	2.10
472	Softwood—			
	(*a*) Clear, on net measure	....do	50.00	2.50
	(*b*) Merchantable, on net measure	....do	36.00	1.80
473	Ordinary, masts and spars	Value	(1)	....
474	Railway sleepers	....do	(1)	....
475	Teak-wood, beams and planks	1,000 superficial feet, b. m.	135.00	6.75
	WOOD, BAMBOOS, RATTANS, ETC.			
476	Canes, bamboo	Thousand	8.40	.42
477	Rattan skin	Picul	15.00	.75
478	Rattans:			
	Core or whole	....do	6.41	.32
479	Split	....do	6.70	.34
	Wood:			
480	Camagon	....do	3.20	.16
481	Camphor	Value	(1)	....
482	Ebony	....do	(1)	....
483	Fragant	....do	(1)	....
484	Garoo	Catty	2.40	.12
485	Kranjee	Value	(1)	....
	Laka. (See Dyes.)			
486	Lignum-vitæ	....do	(1)	....
487	Oil	....do	(1)	....

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[1] 5 per cent.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	WOOD, BAMBOOS, RATTANS, ETC.—continued.			
	Wood—Continued.			
488	Puru	Picul	1.80	0.09
489	Red and rose	do	4.10	.21
490	Sandal	do	8.60	.43
491	Sandal, dust	Value	(1)	
	Sapan. (See Dyes.)			
492	Scale sticks	Piece	.18	.009
493	Scented	Value	(1)	
494	Shavings, Hinoki	do	(1)	
495	Veneer	do	(1)	
	In this tariff, by softwood is meant the wood of any coniferous tree and of all trees with "needle" or spinous leaves, that is, pines, firs, spruces, larches, cedars, yews, junipers, and cypresses. The wood of all trees with broad leaves is to be classed as hardwood.			
	COAL, FUEL, PITCH, AND TAR.			
496	Coal	Ton	5.400	.27
497	Coal briquets	do	10.000	.50
498	Charcoal	Picul	1.093	.05
499	Coke	Ton	10.902	.55
500	Liquid fuel	do	14.572	.73
501	Pitch	Picul	4.709	.24
502	Tar, coal	do	1.600	.08
	CHINAWARE, ENAMELED WARE, GLASS, ETC.			
503	Basins, tin	Gross	6.000	.30
504	Chinaware	Value	(1)	
	Enameled ironware:			
505	Mugs, cups, basins, and bowls, not over 11 centimeters in diameter.	Dozen	1.000	.05
506	Basins and bowls, over 22 centimeters but not over 35 centimeters in diameter.	do	2.000	.10
507	Enameled ironware, unenumerated	Value	(1)	
508	Glass and crystal ware	do	(1)	
	Glass:			
	Plate—			
509	Silvered, beveled or unbeveled, not over 5 square feet each.	Square foot	.560	.028
510	Silvered, beveled or unbeveled, over 5 square feet each.	do	.840	.042
511	Unsilvered	Value	(1)	
	Window—			
512	Common, not over 32 ounces in weight per square foot.	100 square feet	5.000	.25
513	Colored	do	12.000	.60
	Mirrors (see No. 589)	Value	(1)	
	EARTH, PRECIOUS STONES, STONES, ETC.			
514	Amber	do	(1)	
515	Cement	Picul	.900	.045
516	Coral beads	Catty	16.000	.80
517	Cornelian beads	Value	(1)	
518	Cornelian stones, rough	Hundred	6.000	.30
519	Corundum sand	Picul	3.800	.19
	Emery and glass powder (see No. 564)	do	2.400	.12
	Emery cloth and sandpaper. (See No. 577.)			
520	Fire bricks	Value	(1)	
521	Fire clay	Picul	1.220	.061
522	Flints (including flint pebbles)	do	.800	.04
523	Tiles	Value	(1)	
	ASBESTOS.			
524	Boiler composition	do	3.600	.18
525	Fiber and metallic packing	do	64.000	3.20
526	Millboard	do	8.000	.40
527	Sheets and packing	do	44.000	2.20
528	Yarn	do	40.000	2.00

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[1] 5 per cent.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	BAGS, MATS, AND MATTING.			
	Bags:			
529	Cotton, new	Picul	40.000	2.00
	Gunny—			
	New (see No. 57)	do	8.480	.42
	Old (see No. 58)	Value	(1)	
	Hemp or Hessian—			
	New (see No. 60)	Picul	18.900	.95
	Old (see No. 61)	Value	(1)	
530	Straw and grass	Thousand	30.000	1.50
	Mats:			
531	Coir (door)	Dozen	8.000	.40
532	Fancy	Value	(1)	
533	Formosa grass (bed)	Each	4.700	.24
534	Rattan	Value	(1)	
535	Rush	Hundred	71.000	3.60
536	Straw	do	5.100	.26
537	Tatami	Each	.320	.016
	Matting:			
538	Coir, 36 inches by 100 yards	Roll of 100 yards	37.100	1.90
539	Straw, 36 inches by 40 yards	Roll of 40 yards	5.000	.25
	BUTTONS.			
540	Fancy (glass, jewelry, etc.)	Value	(1)	
541	Metal (not including those made of precious metals or plated with precious metals).	Gross	.400	.02
542	Porcelain	12 gross	.340	.017
543	Shell	Gross	.420	.021
	FANS, UMBRELLAS, AND SUNSHADES.			
	Fans:			
	Palm-leaf—			
544	Coarse	Thousand	7.000	.35
545	Fancy	do	20.000	1.00
546	Fine	do	12.000	.60
547	Paper or cotton	do	47.000	2.40
548	Silk	Value	(1)	
	Umbrellas and sunshades:			
549	With handles wholly or partly of precious metals, ivory, mother-of-pearl, tortoise shell, agate, etc., or jeweled.	do	(1)	
550	With all other handles, all cotton—			
	(a) Length of rib not over 17 inches	do	(1)	
	(b) Length of rib over 17 inches	Each	.440	.022
	With all other handles—			
551	Mixtures, not silk	do	.730	.037
552	Silk, and silk mixtures	do	1.300	.065
	FILES AND NEEDLES.			
	Files of all kinds:			
553	Filing surface only, not over 4 inches long	Dozen	1.300	.065
554	Filing surface only, over 4 inches, but not over 9 inches long.	do	2.700	.14
555	Filing surface only, over 9 inches, but not over 14 inches long.	do	5.000	.25
556	Filing surface only, over 14 inches long	do	12.000	.60
	Needles:			
557	Nos. 7/0 and 6/0	100 mille	54.000	2.70
558	Nos. 3/0 and 2/0	do	50.000	2.50
559	Assorted (not including 7/0)	do	40.000	2.00
	MATCHES AND MATCH-MAKING MATERIALS.			
	Matches, wood, safety, or other:			
560	Small, in boxes not over 2 inches by 1⅜ inches by ⅝ inch.	100 gross box	18.400	.92
561	Large, in boxes not over 2¼ inches by 1½ inches by ¾ inch.	50 gross box	16.000	.80
562	In boxes over above sizes	Value	(1)	
563	Chlorate of potash	Picul	36.000	1.80
564	Emery and glass powder	do	2.400	.12
565	Labels	Value	(1)	
566	Phosphorus	Picul	70.000	3.50
	Wax, paraffin (see No. 406)	do	10.000	.50
567	Wood shavings	do	2.200	.11
568	Wood splints	do	2.000	.10

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(1) 5 per cent.

Number.	Name of article.	Agreed value.		Proposed duty rate.
		Per—	Haikwan taels.	Haikwan taels.
	METAL THREADS AND FOIL.			
	Thread:			
569	Gold, imitation, on cotton	Catty	3.000	0.15
570	Silver, imitation, on cotton	do	1.800	.09
571	Gold and silver, imitation, on silk	Value	(1)	
572	Tinfoil	Picul	63.000	3.20
	SUNDRIES.			
573	Bamboo baskets, bamboo blinds, and other bamboo ware.	Value	(1)	
574	Bent-wood chairs	do	(1)	
575	Coir yarn	do	(1)	
576	Cordage and twine	do	(1)	
577	Emery cloth and sandpaper (sheet not over 144 square inches).	Ream	5.000	.25
578	Furniture and other wood ware	Value	(1)	
579	Glue (not including fish glue)	Picul	20.000	1.00
580	Glue, cow, refuse	do	20.000	1.00
581	Glue, fish	do	75.857	3.80
582	India rubber and gutta-percha, crude	Value	(1)	
583	India rubber, old or waste	do	(1)	
584	Inks of all kinds	do	(1)	
585	Insect powder	do	(1)	
586	Lamp wick	Picul	54.600	2.70
587	Leather purses	Gross	11.200	.56
588	Machines, sewing and knitting	Value	(1)	
589	Mirrors	do	(1)	
590	Molding, picture	do	(1)	
591	Oakum	Picul	12.600	.63
592	Rope	Value	(1)	
593	Shoes and boots	do	(1)	
594	Starch	do	(1)	
595	Sulphur	do	(1)	
596	Tinder	Picul	9.000	.457
597	Worm tablets, in bottles, not over 60 pieces	Dozen	.740	.03
598	Unenumerated goods	Value	(1)	

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[1] 5 per cent.

SCHEDULE OF TARIFF ON EXPORTS.

Following are the tariff rates applicable on exports of native goods from China, according to the schedule annexed to the Tientsin Treaty of 1858:

[The abbreviations in the following table in the column headed "Duty" indicate these units of value T=tael, 1⅓ ounces of silver; M=mace, one-tenth of a tael; first C=candareen, one-tenth of a mace; second C=cash, one-tenth of a candareen. The picul is equal to 133⅓ pounds and the catty to 1⅓ pounds.]

Name of article.	Tariff unit.	Duty.			
		T.	*M.*	*C.*	*C.*
Alum	Picul	0	0	4	5
Alum, green or copperas	do	0	1	0	0
Aniseed:					
Star	do	0	5	0	0
Broken	do	0	2	5	0
Oil	do	5	0	0	0
Apricot seeds, or almonds.	do	0	4	5	0
Arsenic	do	0	4	5	0
Artificial flowers	do	1	5	0	0
Bamboo ware	do	0	7	5	0
Bangles, or glass armlets	do	0	5	0	0
Beans and peas	do	0	0	6	0
Bean cake	do	0	0	3	5
Bone and horn ware	do	1	5	0	0
Brass:					
Buttons	do	3	0	0	0
Foil	do	1	5	0	0
Ware	do	1	0	0	0
Wire	do	1	1	5	0
Camphor	do	0	7	5	0
Canes	Thousand	0	5	0	0
Cantharides	Picul	2	0	0	0
Capoor cutchery	do	0	3	0	0
Carpets and druggets	Hundred	3	5	0	0
Cassia:					
Lignea	Picul	0	6	0	0
Buds	do	0	8	0	0
Twigs	do	0	1	5	0
Oil	do	9	0	0	0
Castor oil	do	0	2	0	0
Chestnuts	do	0	1	0	0
China roots	do	0	1	3	0
Chinaware:					
Fine	do	0	9	0	0
Coarse	do	0	4	5	0
Cinnabar	do	0	7	5	0
Clothing:					
Cotton	do	1	5	0	0
Silk	do	10	0	0	0
Coal	do	0	0	4	0

Name of article.	Tariff unit.	Duty.			
		T.	*M.*	*C.*	*C.*
Coir	Picul	0	1	0	0
Copper ore	do.	0	5	0	0
Copper sheathing, old	do.	0	5	0	0
Copper and pewter ware	do.	1	1	5	0
Corals, false	do.	0	3	5	0
Cotton:					
Raw	do.	0	3	5	0
Rags	do.	0	0	4	5
Cow bezoar	Catty	0	3	6	0
Crackers, fireworks	Picul	0	5	0	0
Cubebs	do.	1	5	0	0
Curiosities, antique	Ad valorem.	[1]			
Dates:					
Black	Picul	0	1	5	0
Red	do.	0	0	9	0
Dye, green	Catty	0	8	0	0
Eggs, preserved	Thousand	0	3	5	0
Fans:					
Feather	Hundred	0	7	5	0
Paper	do.	0	0	4	5
Palm leaf, trimmed	Thousand	0	3	6	0
Palm leaf, untrimmed	do.	0	2	0	0
Felt cuttings	Picul	0	1	0	0
Felt caps	Hundred	1	2	5	0
Fungus, or agaric	Picul	0	6	0	0
Galangal	do.	0	1	0	0
Garlic	do.	0	0	3	5
Ginseng:					
Native	Ad valorem	[2]			
Korean or Japanese—					
First quality	Catty	0	5	0	0
Second quality	do.	0	3	5	0
Glass beads	Picul	0	5	0	0
Glass or vitrified wire	do.	0	5	0	0
Grass cloth:					
Fine	do.	2	5	0	0
Coarse	do.	0	7	5	0
Groundnuts	do.	0	1	0	0
Groundnut cake	do.	0	0	3	0
Gypsum, ground, or plaster of Paris.	do.	0	0	3	0
Hair:					
Camel's	do.	[3]1	0	0	0
Goat's	do.	0	1	8	0
Hams	do.	0	5	5	0
Hartall, or orpiment	do.	0	3	5	0
Hemp	do.	0	3	5	0
Honey	do.	0	9	0	0
Horns, deer's:					
Young	Pair	0	9	0	0
Old	Picul	1	3	5	0
India ink	do.	4	0	0	0
Indigo, dry	do.	1	0	0	0
Ivory ware	Catty	0	1	5	0
Joss sticks	Picul	0	2	0	0
Kittysols, or paper umbrellas.	Hundred	0	5	0	0
Lacquered ware	Picul	1	0	0	0
Lamp wicks	do.	0	6	0	0
Lead:					
Red (minium)	do.	0	3	5	0
White (ceruse)	do.	0	3	5	0
Yellow (massicot)	do.	0	3	5	0
Leather articles, as pouches, purses, etc.	do.	1	5	0	0
Leather articles, green	do.	1	8	0	0
Lichees	do.	0	2	0	0
Lily flowers, dried	do.	0	2	7	0
Lily seeds or lotus nuts	do.	0	5	0	0
Licorice	do.	0	1	3	5
Lungngans	do.	0	2	5	0
Lungngans, without stones	do.	0	3	5	0
Manure cakes, or poudrette.	do.	0	0	9	0
Marble slabs	do.	0	2	0	0
Mats of all kinds	Hundred	0	2	0	0
Matting (see remarks at end of tariff).	Roll of 40 yards.	[3]0	2	0	0
Melon seeds	Picul	0	1	0	0
Mother-of-pearl ware	Catty	0	1	0	0
Mushrooms	Picul	1	5	0	0
Musk	Catty	0	9	0	0
Nankeens and native cotton cloths.	Picul	1	5	0	0
Nutgalls	do.	0	5	0	0
Oil, as bean, tea, wood, cotton, and hemp seed.	do.	0	3	0	0
Oiled paper	do.	0	4	5	0
Olive seed	do.	0	3	0	0
Oyster shells, sea shells	do.	0	0	9	0
Paint, green	do.	0	4	5	0
Palampore, or cotton bed quilts.	Hundred	2	7	5	0
Paper:					
First quality	Picul	0	7	0	0
Second quality	do.	0	4	0	0
Pearls, false	do.	2	0	0	0
Peel:					
Orange	do.	0	3	0	0
Pomelo—					
First quality	do.	0	4	5	0
Second quality	do.	0	1	5	0
Peppermint:					
Leaf	do.	0	1	0	0
Oil	do.	3	5	0	0
Pictures and paintings	Each	0	1	0	0
Pictures on pith or rice paper.	Hundred	0	1	0	0
Pottery, earthenware	Picul	0	0	5	0
Preserves, comfits, and sweetmeats.	do.	0	5	0	0
Rattans, split	do.	0	2	5	0
Rattan ware	do.	0	3	0	0
Rhubarb	do.	1	2	5	0
Rice or paddy, wheat, millet, and other grain.	do.	0	1	0	0
Rugs of hair or skin	Each	0	0	9	0
Samshu	Picul	0	1	5	0
Sandalwood ware	Catty	0	1	0	0
Seaweed	Picul	0	1	5	0
Sesamum seed	do.	0	1	3	5
Shoes and boots, leather or satin.	100 pairs	3	0	0	0
Shoes, straw	do.	0	1	8	0
Silks:					
Raw and thrown	Picul	10	0	0	0
Yellow, from Szechwan	do.	7	0	0	0
Reeled from dupions	do.	5	0	0	0
Silk:					
Wild raw	do.	2	5	0	0
Refuse	do.	1	0	0	0
Cocoons	do.	3	0	0	0
Floss—					
Canton	do.	4	3	0	0
From other Provinces.	do.	10	0	0	0
Ribbons and thread	do.	10	0	0	0
Piece goods; pongees, shawls, scarfs, crêpe, satin, gauzes, velvet and embroidered goods.	do.	12	0	0	0
Piece goods: Szechwan, Shantung.	do.	14	5	0	0
Tassels	do.	0	0	0	0
Caps	Hundred	0	9	0	0
Silk and cotton mixtures	Picul	5	5	0	0
Silver and gold ware	do.	10	0	0	0
Snuff	do.	0	8	0	0
Soy	do.	0	4	0	0
Straw braid (see remarks at end of tariff).	do.	[3]0	7	0	0
Sugar:					
Brown	do.	0	1	2	0
White	do.	0	2	0	0
Candy	do.	0	2	5	0
Tallow:					
Animal	do.	0	2	0	0
Vegetable	do.	[3]0	3	0	0
Tea (see remarks at end of tariff).	do.	2	5	0	0
Tin foil	do.	1	2	5	0

[1] Per cent.

[2] 5 per cent.

[3] Rates subsequently modified.

Name of article.	Tariff unit.	Duty.			
		T.	*M.*	*C.*	*C.*
Tobacco:					
Prepared	Picul	0	4	5	0
Leaf	do.	0	1	5	0
Tortoise-shell ware	Catty	0	2	0	0
Trunks, leather	Picul	1	5	0	0
Turmeric	do.	0	1	0	0
Twine, hemp:					
Canton	do.	0	1	5	0
Soochow	do.	0	5	0	0
Turnips, salted	do.	0	1	8	0
Varnish, or crude lacquer.	Picul	0	5	0	0
Vermicelli	do.	0	1	8	0
Vermilion	do.	2	5	0	0
Wax, white or insect	do.	1	5	0	0
Wood: Piles, poles, and joists.	Each	[1]0	0	3	0
Woodware	Picul	1	1	5	0
Wool	do.	0	3	5	0

[1] Rates subsequently modified.

The export tariff was amended in 1914 and 1915 in a few particulars, the most important of which are the following: Matting, duty reduced to 0.10 tael per roll of 40 yards; tea, black and green, duty reduced to 1 tael per picul[1]; straw braid, duty reduced to 0.35 tael per picul; lace, drawn work, hair nets, preserved fruits, and ginger, duties abolished.

Since February, 1861, it has been the practice of the Shanghai Customs to charge duty ad valorem on coarse unfired Japanese tea imported for local consumption.

Since April 1, 1861, tea imported from Japan for the purpose of being refired and reexported to a foreign country has been dealt with at Shanghai according to the following rule:

> Tea imported into this port from Japan for the purpose of being refired and reexported to a foreign country will be allowed a reduction on the actual weight imported of 20 per cent on the import duty, and when reexported a drawback certificate for the entire amount of duty paid will be granted on application in the usual manner, provided that the terms of Article XLV of the treaty between Great Britain and China be complied with, and that the weights, etc., be correctly declared.

In the tariff appended to the Russian Regulations of 1862 the export duty on brick tea is fixed at 6 mace per picul.

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[1] EDITOR'S NOTE.—As this handbook was going to press, a report was received from the United States consulate general at Hankow, stating that the following notice has been issued by the Maritime Customs authorities (Oct. 11, 1919) releasing tea from the payment of export duty: "On and after the 10th instant all kinds of tea—including tea dust and brick tea—shipped abroad will be passed free of duty. No duty will be charged on tea shipped from one treaty port to another, if declared for exportation abroad. But, upon its landing at the second port, the consignee will be required to deposit a bond (valid for one year) for the export and coast duties at existing rates."

POSTAL FACILITIES IN CHINA.

By Commercial Attache Julean Arnold.

POSITION OF FOREIGN POST OFFICES IN CHINA.

The developments in the Chinese postal service during the past decade have been so extensive and so favorable that there is in reality no longer any need for a continuance of the foreign post offices operated in that country.

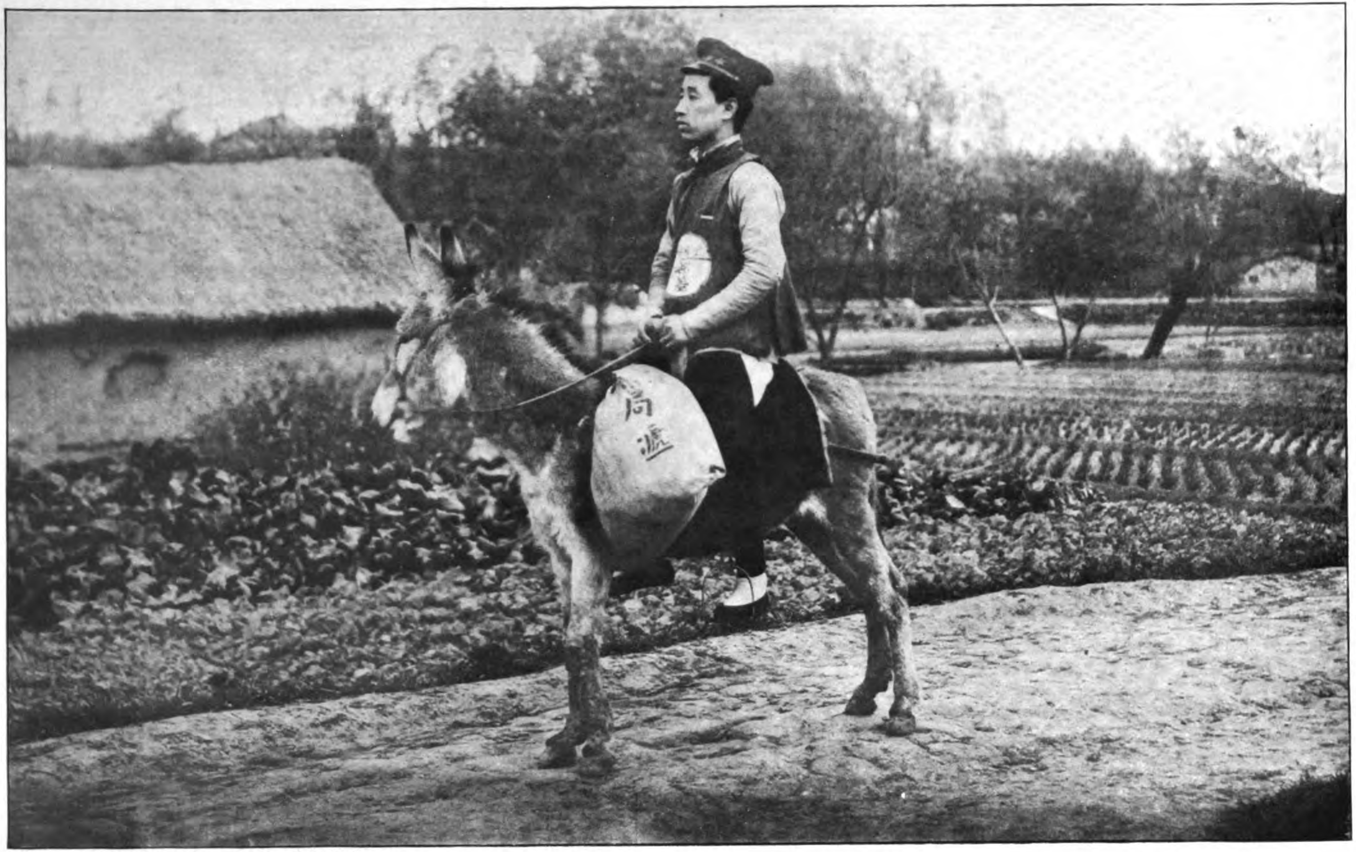
In the city of Shanghai there are the following foreign post offices: American, British, French, Japanese, German, and Russian. With the exception of the American, these post offices are also found in Peking, Tientsin, Hankow, and Canton. The Japanese have their post offices scattered throughout China in large numbers. These foreign post offices in China operate as extensions of the domestic postal administration of the countries that they represent. Thus it would be to the disadvantage of any one country to withdraw its post office from China unless the others did likewise, for the reason that the facilities which these post offices extend to the commercial interests of their respective nationals are of appreciable significance.

The United States post office at Shanghai, for instance, operates as a domestic American post office in its relations with the rest of the United States, so that mail, parcels, money orders, etc., can be sent to Shanghai at the same rates that obtain in the domestic administration of post offices in the United States, but as the United States has no post offices in any other part of China, it is necessary, in communication with sections other than Shanghai, to use international rates.

In accordance with a postal convention, the Japanese and Chinese Governments maintain domestic rates for all mail matter, but the Japanese post offices in China give an added advantage to their nationals by accepting subsidiary coins at their face value in the purchase of stamps. The Japanese post office also maintains in China its own system of mail delivery, whereas the United States post office in Shanghai has an arrangement with the Chinese post office for the delivery of its mail.

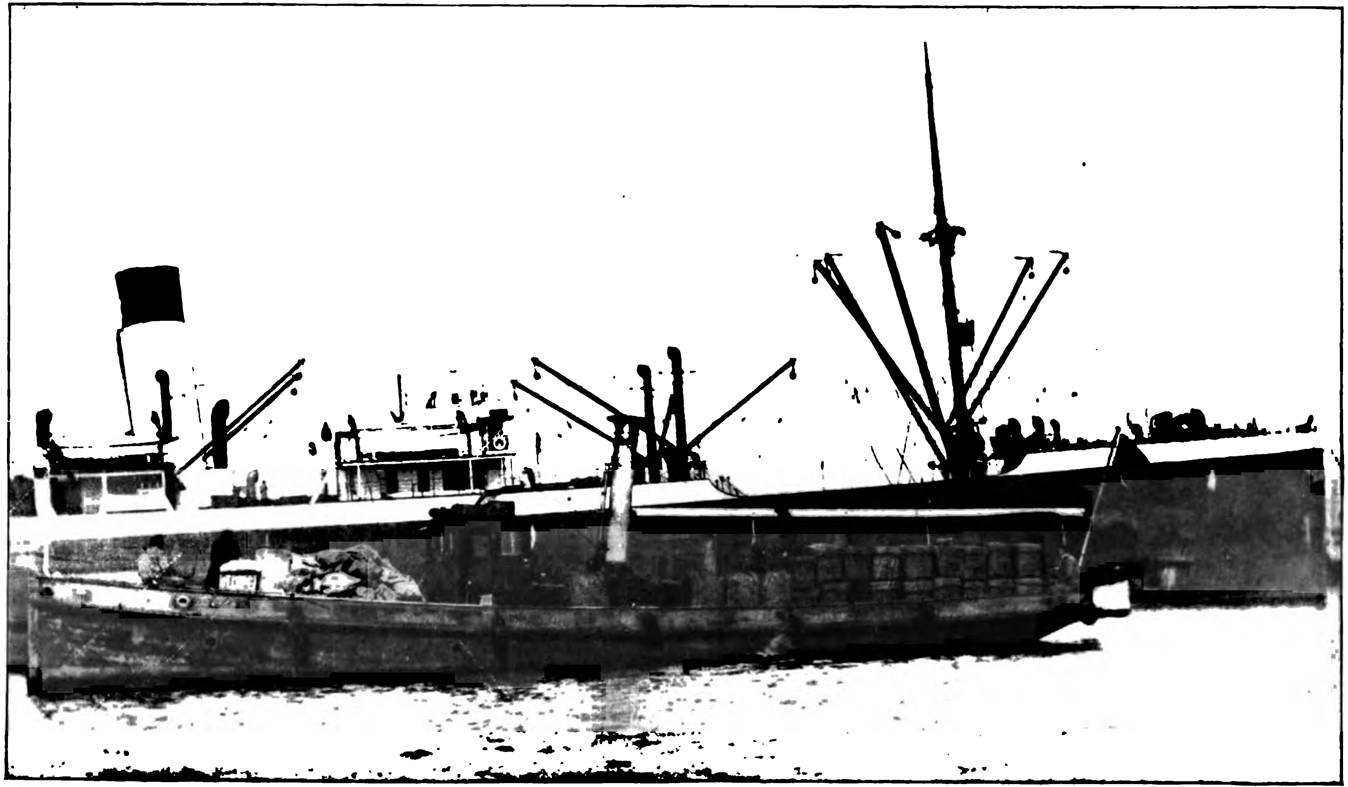
CHINESE POST OFFICE.

The Chinese postal service has extended its facilities to every district in the country, including, in many of the outlying districts, extensive courier lines. In spite of unsettled conditions that have prevailed in certain sections of the country during the past few years, and notwithstanding the great difficulty of transportation in other sections, the Chinese postal service has been remarkably efficient, and one hears but little criticism in connection with its organization and general work. It reports that very few complaints concerning loss of



Photograph by W. R. Giles; courtesy of "Asia."

FIG. 6.—MAIL CARRIER IN KIANGSU PROVINCE.



Photograph by W. R. Giles; courtesy of "Asia."

FIG. 7.—UNLOADING MAILS AT SHANGHAI.

mail or stolen mail are made, and on the whole it is rendering a very satisfactory postal service.

According to the figures for 1917, there are about 9,000 offices and agencies in the Chinese service, exclusive of 2,300 local box offices and 2,000 rural box offices. The service has 140,000 miles of courier lines, 21,600 miles of steamship or boat lines, and 6,300 miles of railway lines. During 1917, 280,000,000 articles were posted, including about 20,000,000 registered and express articles. During the same year $22,000,000 worth of money orders were issued and a like quantity cashed. Thus in five years' time the Chinese postal service has increased from two to fivefold the business that it has transacted. It publishes in English an annual report of the workings of the Chinese post office and a Chinese Postal Guide, each of which can be obtained for the price of 50 cents from any of the Chinese post offices in China. The Postal Guide contains a list of all the Chinese post offices, alphabetically arranged, giving the accepted English spelling and the Chinese characters, as well as the names of the Provinces in which the offices are situated.

The United States Post Office Department announces that the postal administration of China has arranged to participate in the exchange of international reply coupons. The new service went into operation on July 1, 1918. In making this announcement the department states that the Chinese authorities are not willing to exchange reply coupons that do not bear the date stamp of the issuing office.

CHINESE POSTAGE TARIFF.

The tariff of postage established for the Chinese post office (date of notification, Apr. 1, 1918) is shown on the next page; the rates for correspondence are given in a table, with footnotes, while the other postal charges are given immediately after that statement in nontabular form (the word "cent" refers always to the one-hundredth part of a Chinese silver dollar):

Classification of correspondence.	Unit of weight, etc.	1. Domestic places.[a]		2. Foreign countries.		
		I.	II.	III.	IV.	V.
		Local.	Domestic.[b]	Postal union.	Japan, Korea, and leased territory of Kwantung.	Hongkong, Weihaiwei, Macao, and Tsingtau.
		Cents.	*Cents.*	*Cents.*	*Cents.*	*Cents.*
Letters[c]	Each 20 grams or fraction thereof	1	3	....	....	[d] 4
Letters, international	First unit of 20 grams or fraction thereof.	....	....	[d] 10	....	....
	Each successive unit or fraction thereof.	....	....	[d] 6	....	....
	Each 15 grams or fraction thereof	....	....	....	[d, e] 3	....
Post cards	Single	1	1½	[d] 4	[d] 1½	[d, f] 1½
	Double (with reply paid)	2	3	[d] 8	[d] 3	[d, f] 3
Newspapers[g]	Sent singly or in bundles (limit of weight, 2 kilos).	[h, i] ½	[h, j] ½	[h, j, k] 2	[e, k, l, m] ½	[h, j, k] 2
Books and printed matter and commercial papers[g]	Up to 100 grams	[h] ½	[h] 1	[h, j, k, n] 2	[e, k, m, o] 2	[h, j, k, n] 2
	From 100 to 250 grams	[h] 1	[h] 2½			
	From 250 to 500 grams	[h] 2	[h] 5			
	From 500 to 1,000 grams	[h] 4	[h] 7½			
	From 1,000 grams to 2 kilos (limit of weight).	[h] 7½	[h] 15			
Trade circulars[g]	Each 100 copies or fraction thereof	10	(*p*)	....	....	....
Samples[g]	Up to 100 grams	[q] 1	[q] 2	[j, k, q, r] 2	[e, k, o, s] 2	[j, k, q, r] 2
	From 100 to 250 grams	[q] 2	[q] 5			
	From 250 to 350 grams (limit of weight).	[q] 4	[q] 10			

[a] Prepayment of full postage is compulsory.

[b] For Sinkiang and Mongolia, see below, "Tariff Remarks."

[c] Limit of weight, 5 kilos (11 pounds).

[d] When not registered, prepayment of postage is optional; but unprepaid mail matter is liable to a charge of double postage on delivery, and insufficiently prepaid matter to a charge of double the deficiency.

[e] Limit of size, 39 by 26 by 15 centimeters (15 by 10 by 6 inches).

[f] Tsingtau only: 1 cent for single cards; 2 cents for double cards.

[g] Liable to letter rate if sealed against inspection.

[h] Limit of size, 45 by 45 by 45 centimeters (18 by 18 by 18 inches); in rolls, 75 centimeters (30 inches) in length by 10 centimeters (4 inches) in diameter.

[i] Per 100 grams.

[j] Per 50 grams.

[k] At least part postage must be prepaid.

[l] Per 75 grams.

[m] Limit of weight, 1,120 grams.

[n] Minimum charge, 10 cents per packet for commercial papers.

[o] Per 112 grams.

[p] Printed-matter rates plus 10 cents per 100 copies.

[q] Limit of size, 30 by 20 by 10 centimeters (12 by 8 by 4 inches); in rolls, 30 centimeters (12 inches) in length by 15 centimeters (6 inches) in diameter.

[r] Minimum charge, 4 cents per packet.

[s] Limit of weight, 375 grams.

The postal charges, other than for correspondence, are as follows:

Registration fee.—Simple: Domestic places, 5 cents; Postal Union, 10 cents; Japan, Korea, and Leased Territory of Kwantung, 7 cents; Hongkong, Weihaiwei, Macao, and Tsingtau, 10 cents. With return receipt: Domestic places, 10 cents; Postal Union, 20 cents; Japan, Korea, and Leased Territory of Kwantung, 10 cents; Hongkong, Weihaiwei, Macao, and Tsingtau, 20 cents. Prepayment of full postage is compulsory.

Express fee.—Domestic places, 10 cents per article in addition to ordinary postage; Postal Union, Japan, Korea, and Leased Territory of Kwantung, 12 cents per article in addition to ordinary postage and fees. Prepayment of full postage is compulsory.

Insured letters.—Domestic places: One per cent of value declared (minimum, 10 cents) in addition to domestic postage and registration fee. Prepayment of full postage is compulsory.

Money orders.—For domestic places, the charge per dollar or fraction thereof is variable and may be ascertained at the issuing office; the minimum charge per order is 5 cents. For foreign countries money orders are not issued.

Parcels.—For local delivery the charge is 10 cents for parcels up to 5 kilos and 20 cents for parcels from 5 to 10 kilos.

For other domestic places the single rate for parcels up to 1 kilo is 20 cents, and the single rate for every kilo or fraction thereof above 1 kilo up to 10 kilos is 10 cents. Domestic parcels are subject to single, double, treble, quintuple, or sextuple rates, according to the routes followed. (See below, "Tariff remarks," Domestic places, section 10, Parcels.)

For parcels to domestic places the limit of weight is 10 kilos (22 pounds); limit of size, 1 meter (3½ feet) in length, breadth, or depth or 1 meter 80 centimeters (6 feet) in length and girth combined; except for nonsteam-served places, for which the limits are 5 kilos (11 pounds) and 30 by 30 by 30 centimeters (12 by 12 by 12 inches).

For rates to Postal Union countries, see International Postal Tariff, and below, "Tariff remarks," Foreign countries.

For parcels to Japan, Korea, and the Leased Territory of Kwantung the following rates are charged, in addition to single, double, treble, quintuple, or sextuple domestic rates, according to the routes followed (see "Tariff remarks," Domestic places, section 10, Parcels): Up to 750 grams (1 pound 10 ounces), 30 cents; 0.75 kilo to 1.5 kilos (3¼ pounds), 35 cents; 1.5 to 2.25 kilos (5 pounds), 40 cents; 2.25 to 3.375 kilos (7½ pounds), 50 cents; 3.375 to 4.5 kilos (10 pounds), 60 cents; 4.5 to 5.625 kilos (12½ pounds), 70 cents.

For parcels to Hongkong, Weihaiwei, and Tsingtau the charge is 10 cents per parcel in addition to domestic postage. For Hongkong and Weihaiwei the limit of weight is 4.95 kilos (11 pounds).

For parcels to Macao the following rates are charged in addition to domestic postage: Up to 3 pounds (1.35 kilos), 30 cents; 3 to 7 pounds (3.15 kilos), 58 cents; 7 to 11 pounds (4.95 kilos), 85 cents.

On parcels prepayment of full postage is compulsory.

Following are the "Tariff remarks" published in connection with the preceding schedules:

1. DOMESTIC PLACES.

Local: Tariff I.—Applies to mail matter and parcels within local delivery radius.

Domestic: Tariff II.—Applies to mail matter and parcels between Chinese post offices in China, except Mongolia, Sinkiang, and Tibet.

1 and 2. Mongolia and Sinkiang.—As regards postage to, from, and within Mongolia and Sinkiang, double and treble rates obtain. See Post Office.

3. Tibet.—Correspondence, ordinary and registered, to, and from, places in Tibet is to be franked at full Union rates.

4. Insufficiently prepaid mail matter.—Full prepayment of domestic rates in Chinese stamps is compulsory; articles insufficiently prepaid will be refused when presented for posting and if dropped into letter box are liable to detention. The amount due on insufficiently prepaid mail matter will be assessed in every case by the Post Office and indicated in postage-due stamps affixed on the cover; refusal to acquit the postage due so indicated will be equivalent to refusing the article.

5. Delivery inland.—Any mail matter destined for inland places where the Post Office is not established or does not maintain delivery will be forwarded through native agencies at the risk and expense of the addressee or sender.

6. Trade circulars.—All copies of trade circulars must be identical, consist of single sheets of ordinary paper (light catalogues not exceeding 30 grams in weight alone excepted), and contain no writing; they may be printed on one or both sides, be folded or open, but may not be addressed or placed in envelopes.

7. Express delivery.—Mail matter for express delivery, if addressed to a place at which an express delivery office functions, may be posted at any postal establishment. The domestic express delivery fee, which includes simple registration, is payable in addition to the ordinary rate of postage by means of postage stamps.

8. Insured letters.—Domestic registered letters may be insured at a limited number of offices. They must be enclosed in special covers, to be obtained at the Post Office; these are sold in three sizes at 1 cent, 2 cents, and 3 cents each.

9. Money orders.—Limit of issue on one money order, $200 between money order offices *Aa*, $100 between money order offices *A*, or *A* and *Aa*, and $50 between money order offices *B*, or *B* and *A* or *Aa*. Between money order offices *Aa*, the limit in value of Money Orders issuable on one day to the same person and for the same payee is $600, between money order offices *A*, or *A* and *Aa* is $300, and between money order offices *B*, or *B* and *A* or *Aa* is $100. For names of offices on which money orders are issuable, see Postal Guide, Part II, column 5, Indications Nos. 2*a*, 2, and 3; for fee payable, inquire at money order offices.

10. Parcels.—Domestic parcels are subject to single, double, treble, quintuple, or sextuple rates, according to the routes followed.

(*a*) For all parcels except those to, from, and between offices in Kansu, Shensi, Szechwan, Yunnan, Kweichow, Mongolia, or Sinkiang the following rates apply:

1°. Parcels between steam-served places transmitted throughout by steam services ---- Single rate.
2°. Parcels for transmission within the Province of posting or to contiguous Provinces whether transmitted by steam service or courier ---- Single rate.
3°. Parcels for transmission to Provinces not contiguous to the Province of posting and reached wholly or partly by courier ---- Double rates.

(*b*) For all parcels to, from, and between offices in Kansu, Shensi, Szechwan, Yunnan (except via Indo-China), Kweichow, Mongolia, or Sinkiang the following rates apply:

1°. Parcels to steam-served places in Szechwan from steam-served places elsewhere, transmitted throughout by steam services ---- Double rates.
2°. Parcels from steam-served places in Szechwan to steam-served places elsewhere, transmitted throughout by steam services ---- Single rate.
3°. Parcels posted in Szechwan, Kansu, Shensi, Yunnan, or Kweichow for transmission and delivery within the Province of posting ---- Single rate.
4°. Parcels from nonsteam-served places in Szechwan, all places in Kansu, Shensi, Yunnan (except via Indo-China), or Kweichow to places in Provinces contiguous to the Province of origin, and vice versa ---- Double rates.
5°. Parcels from nonsteam-served places in Szechwan, all places in Kansu, Shensi, Yunnan (except via Indo-China), or Kweichow to places in Provinces not contiguous to the Province of origin, and vice versa ---- Treble rates.
6.° Parcels posted for transmission and delivery within Mongolia ---- Double rates.
7°. Parcels exchanged between Mongolia and places in all other Provinces (except places in Yunnan via Indo-China) ---- Sextuple rates.

N. B.—Parcels addressed to places beyond Urga are subject to an additional single domestic rate of postage payable by the addressee.

8°. Parcels posted for transmission and delivery within the Province of Sinkiang ---- Double rates.
9°. Parcels exchanged between Sinkiang and places in all other Provinces (except places in Yunnan via Indo-China) ---- Sextuple rates.

N. B.—Parcels addressed to places beyond Tihwafu are subject to an additional single domestic rate of postage payable by the addressee.

(*c*) For parcels to, and from, places in Yunnan, for transmission through Hongkong and Indo-China, the following rates apply:

1°. Parcels between steam-served places in Yunnan and steam-served places in other Provinces except Szechwan, and parcels from steam-served places in Szechwan to steam-served places in Yunnan:

Not exceeding 1 kilo	$0.70
From 1 to 2 kilos	.85
From 2 to 3 kilos	1.05
From 3 to 5 kilos	1.20
From 5 to 7 kilos	1.70
From 7 to 10 kilos	1.90

2°. Parcels from steam-served places in Yunnan to steam-served places in Szechwan, and parcels between nonsteam-served places in Yunnan and nonsteam-served places in all Provinces except Szechwan, Kansu, Shensi, and Kweichow, single domestic rate in addition to the special rate given under 1°.

3°. Parcels between nonsteam-served places in Yunnan and nonsteam-served places in the Provinces of Szechwan, Kansu, Shensi, and Kweichow, double domestic rates in addition to the special rate given under 1°.

4°. Parcels between Yunnan and Mongolia or Sinkiang, quintuple domestic rates in addition to the special rate given under 1°.

(*d*) On parcels via Hongkong to domestic places an extra 2 cents per ½ kilo (1 pound) is charged, except in the case of paragraph (*c*) above.

A return receipt may be obtained on payment of an additional fee of 5 cents for all domestic places except Mongolia and Sinkiang, in which case the fee is 10 cents.

11. Insured parcels.—Domestic parcels may be insured at a limited number of offices against a domestic insurance fee of ½ cent per dollar or fraction thereof (minimum fee, 5 cents) of the amount insured, except to or from offices in Szechwan, when the fee is 2 cents per dollar or fraction thereof (minimum fee, 10 cents). Parcels containing goldware, silverware, jewelry, or precious stones must be insured. The limit of insurance is $500 except to and from Szechwan, which is $50.

12. Trade charge parcels.—Parcels taxed with trade charges are accepted for transmission between domestic parcel insurance offices on payment of a fee of 2 per cent on the amount to be collected.

2. FOREIGN COUNTRIES.

(Weight and size must conform with the rules of the country concerned.)

1. Union: Tariff III (Union rates).—Mail matter to or from countries in the Postal Union.

2. Japan, etc.: Tariff IV.—Mail matter to or from Japan, Korea, and the Leased Territory of Kwantung.

For packets containing seeds of agricultural products the rate of postage is 1 cent per 112 grams or fraction thereof, up to 1,120 grams.

3. Hongkong, etc.: Tariff V.—Mail matter to, and from, Hongkong and Liukungtao (Weihaiwei), Macao, and Tsingtau. (Exception: Letters from Canton to Hongkong, and also letters from Canton and Tsinshan to Macao, and vice versa, are charged 2 cents per 15 grams or fraction thereof.)

These tariffs frank international mail matter prepaid at Union rates (III) or at specially arranged rates (IV, V) to or from any place in China where a Chinese post office exists; but a tax of 2 cents for each article distributed is collected from the addressees on printed papers of all kinds—newspapers, books, and printed matter—received from foreign countries, except Hongkong and Japan, and addressed to nonsteam-served places. On such mail matter from Hongkong and Japan the tax collected is equal to the domestic rate of postage. (Tariff II).

4. Insufficiently prepaid mail matter.—Articles arriving from abroad insufficiently franked will be forwarded to destination, but double the deficiency in Union postage—and for heavy mail articles transmitted inland 2 cents per article or once the deficiency in domestic postage as the case may be—will be collected from the addressee on delivery. The amount due will be assessed in every case by a Chinese post office and indicated in postage-due stamps affixed on the cover; refusal to acquit the postage due so indicated will be equivalent to refusing the article.

5. *International express mail matter* is accepted for a limited number of foreign countries, a list of which may be seen at any domestic express delivery office. The Post Office only issues receipts for international express delivery articles if they are registered.

6. *Internationl parcels.*—

(*a*) International parcels from establishments belonging to Category A ("List of Post Offices," Indication No. 7—Offices exchanging parcels under Union regulations) pay postage according to the international parcel tariff.

(*b*) International parcels from establishments belonging to Category B (places not included in "List of Post Offices," Indication No. 7) pay the above, and, in addition, domestic postage (Tariff II), single double, treble, quintuple, or sextuple (vide "Tariff remarks": 1.—Domestic Places, § 10, above), applicable between the place of origin and the nearest establishment in "List of post offices," Indication No. 7.

(*c*) In the case of international parcels destined to establishments belonging to Category B, this domestic postage—applicable between the place of destination and the nearest establishment in "List of Post Offices," Indication No. 7—is collected from addressees.

(*d*) A return receipt may be obtained on payment of an additional fee of 10 cents, except in the case of parcels for Japan, Korea, and the Leased Territory of Kwantung, when the additional fee is 3 cents. Return receipts are not obtainable for uninsured parcels addressed to the United Kingdom or sent "via London."

3. CURRENCY.

(For the purchase of stamps.)

Full-value dollars purchase 100 cents in stamps; subsidiary silver coins, copper 1-cent pieces, copper cash, and inferior dollars are accepted at average dollar-exchange rates periodically fixed by the Postal Commissioner.

4. PROHIBITIONS.

It is forbidden to send by post articles which from their nature may soil or damage the correspondence, also contraband, explosive, inflammable, or dangerous substances, as well as opium, morphia, cocaine, salt, copper cash, bullion, arms, munitions of war, and coins of all kinds. Articles liable to customs duty, and goldware, silverware, jewelry, and precious stones, may not be sent in correspondence, but may be sent by parcel post under special regulations.

UNITED STATES POSTAL AGENCY AT SHANGHAI.

As already stated, the United States Government maintains at Shanghai a postal agency, through which articles of every kind are admitted to the domestic mail of the United States for delivery to the city of Shanghai at rates and under conditions similar to those applicable to articles addresed for delivery in the United States. Also, postal money orders may be issued to and from Shanghai on the United States domestic basis.

It should be borne in mind, however, that while domestic rates obtain between the United States Postal Agency at Shanghai and all sections of the United States, no similar arrangement obtains in the postal service between other parts of China and the United States. Thus, for communication with any section of China other than Shanghai it is necessary to use the international postal rates and proceed under the regulations of the International Postal Union, of which China is a member.

The following paragraphs are quoted from the United States Official Postal Guide, 1918, as of special interest in connection with the use of the postal service between the United States and Shanghai:

(*a*) Articles of every kind that are admitted to the domestic mails of the United States may be sent by mail for delivery in the city of Shanghai at the postage rate and under the conditions which apply to similar articles addressed for delivery in the United States. Letters for the city of Shanghai specially addressed via Siberia or via Europe and Siberia or otherwise to indicate the trans-Siberian route are subject to the Postal Union postage rate of 5 cents for the first ounce and 3 cents for each additional ounce or fraction of an ounce. Such letters are not delivered through the postal agency at Shanghai, but under the Postal Union regulations are delivered through the Chinese or British post offices in the city of Shanghai.

Letters for the city of Shanghai sent via the Pacific are delivered through the United States Postal Agency in that city, and are consequently subject to domestic rates and conditions. Articles for all other parts of China by either the Pacific or trans-Siberian route are subject to Postal Union conditions, unless by "international parcel post."

Only such parcels for the city of Shanghai as can not be sent by domestic parcel post to the United States Postal Agency at Shanghai should be sent by international parcel post via the Chinese Post Office at Shanghai.

It is to be noted that parcels by the domestic parcel post can be insured but can not be registered.

(*b*) All letters and packages included in mails made up in the United States for the United States postal agency at Shanghai and received at that agency which contain, or in the opinion of the postal agent may contain, articles liable to Chinese customs duties, are submitted to customs officials specially authorized to perform that duty by the Chinese Maritime Customs, who determine the dutiable character of the articles and levy the proper customs charges upon such as they find to be dutiable; which charges the United States postal agent collects upon the delivery of the articles, and transmits the amounts so collected to the Chinese customs official designated to receive and receipt for the same.

(*c*) Articles which the addressees refuse to receive on account of the customs charges will be returned to this country the same as other undeliverable articles, and the Chinese customs official who appraised such articles will be promptly advised of the refusal of the addressees to pay the charges and of the return of the articles to the United States.

Parcels to the United States from Shanghai, China, to which the domestic postal regulations are applicable, must not exceed 50 pounds in weight nor 48 inches length and girth combined. The postal rate on parcel post packages from Shanghai, China, to the United States is 12 cents gold per pound or fraction thereof.

Advices of the United States Post Office Department from the United States postal agent at Shanghai, China, suggest that declaration tags or invoices should be attached to parcel-post packages sent to China.

Although this Shanghai postal agency has all the parcel-post privileges of a post office in the United States, all parcels received must, nevertheless, pass the inspection of the Chinese Customs.

Addressees are often caused much inconvenience and needless expense because the sender fails to forward the invoices in the same mail as the parcel or to attach a customs declaration tag or invoice to the parcel.

China admits duty free merchandise for personal use to the value of 10 taels. When invoices or customs declaration tags are attached, the parcels are passed and delivered immediately; otherwise they are held for customs inspection, and not a little difficulty is experienced in obtaining delivery.

Parcel-post mail is handled from the Pacific seaboard as first-class matter. Unless the invoice is put into the mail on the same day the parcel is mailed, it frequently occurs that the latter catches an outgoing steamer and the document is left behind, arriving in Shanghai a week or two later.

In some cases American firms have neglected to send invoices altogether. Parcels accumulate needlessly in the postal agency awaiting the documents. Some firms apparently do not understand that invoices may be inclosed in invoice envelopes and attached to the parcel without extra postage.

Too much emphasis and insistence can not be placed upon this point, inasmuch as it has been found to affect the reputation of American business in China. The time factor consequent upon the distance should not be complicated with avoidable delays.

Particularly is it advantageous for senders mailing merchandise to banks for account of customers to attach duplicate invoices to the parcels. If this is done, delivery can be effected much more quickly in a majority of cases.

Merchants in America will find the parcel-post C. O. D. service to Shanghai a distinct advantage in dealing with their customers in that city. It must be remembered, however, that this service applies only to the city of Shanghai.

The following paragraph relates to the exchange of money orders with Hongkong:

> Many errors result from the failure of postmasters to understand that Hongkong, China, is a British colony and that there are British postal agencies at the Chinese "treaty ports" of Amoy, Canton, Chefoo, etc., on which orders may be drawn "through" Hongkong. (See "International List.") Payment is made at all of these offices on the original order issued in the United States, which must, therefore, be delivered to the remitter for transmission to the payee.

Persons desiring detailed rulings and information on foreign mails in general (including rates of postage, samples, composite packages, insured and c. o. d. mail, registered mail, etc.) should consult the United States Official Postal Guide.

RAILWAYS IN CHINA.

By Trade Commissioner Frank Rhea.

CLASSIFICATION.

This chapter is designed to give the salient facts concerning the railways in China as they exist at the present writing. Persons desiring a detailed study of the subject are referred to Special Agents Series No. 180, "Far Eastern Markets for Railway Materials, Equipment, and Supplies," a book containing 339 pages and 46 illustrations and obtainable for 35 cents from the Superintendent of Documents, Government Printing Office, Washington, D. C., or any of the district offices of the Bureau of Foreign and Domestic Commerce.

The Chinese railways can probably best be classified as follows; the mileage shown represents the miles of line open December 31, 1917:

Groups.	Total miles of line.	Miles of line of various gauges.			
		5 feet (Russian).	4 feet 8½ inches (standard).	3 feet 3.37 inches (meter).	2 feet.
Chinese Government railways	3,905		3,754	151	
Chinese private railways	234		234		
Chinese provincial railways	112		95	17	
Chinese industrial railways	50		33		17
Total Chinese railways	4,301		4,116	168	17
Foreign railways	2,356	1,078	991	287	
Total all railways in China	6,657	1,078	5,107	455	17

In the above classification two branch lines in Manchuria totaling 132 miles are included as Chinese Government Railways; while these are nominally such, they now are actually under the control and management of the South Manchuria Railway Co. (Japanese) and will be so referred to later. In reality this makes the Chinese Government Railways total less than 3,800 miles and the foreign railways 2,480 miles.

Both the Chinese Government Railways and the industrial railways are being added to by lines under construction. At present no mileage is under construction that will add to any of the other three groups. While private railways are shown as now more important than industrial railways, it is very probable that the latter will in the course of time become more important than the former; in fact, it is very likely that the private railways will gradually be taken over as Chinese Government Railways, as is even more probable in the case of the remaining provincial railways.

LOCATION AND EXTENT.

The railway map of China, in volume 1, shows the general location of the different lines. From the map it will be noted that there is one group of seven lines north of the Yangtze River, radiating from

Peking and Tientsin, which total about 3,000 miles, with some 250 miles of additional lines under construction. The two lines out of Shanghai south of the Yangtze River, totaling 381 miles, are connected by ferry at Pukow with the Tientsin-Pukow line, and the 264 miles of completed line of the Canton-Hankow Railway south of the Yangtze River at Wuchang will no doubt arrange ferry connection with the Peking-Hankow line at Hankow, making a total of about 3,650 miles of line, which is much the most important group of railways at present in China.

The following account will outline briefly the location, extent, connections, and control of the several lines constituting the different groups in the above classification of Chinese railways.

CHINESE GOVERNMENT RAILWAYS.

MINISTRY OF COMMUNICATIONS.

Before describing the several railways in this group it seems desirable to explain that all the Chinese Government Railways are supposed to be under the control of the Ministry of Communications, the department of the Chinese Government in charge of railways, ports, telegraphs, and telephones. This control is actual for such lines as the Peking-Suiyuan, is restricted or limited for such lines as the Shanghai-Nanking, and is entirely nominal for the Kirin-Changchun and Ssupingkai-Chengchiatun lines in Manchuria—these last being the two branches already mentioned as managed by the South Manchuria Railway Co. The headquarters of the Ministry of Communications are at Peking.

PEKING-MUKDEN RAILWAY.

This is the oldest railway in China, and one of the most successful, particularly from a financial standpoint. There is a total of 600 miles of line, and the main line runs from Peking through Tientsin to Mukden, where connection is made with the South Manchuria Railway. A branch extends to the formerly important port of Newchwang, and it passes through the very important Kaiping coal field, which is being operated by the Kailan Mining Administration. Near Peking connection is made with the Peking-Hankow and Peking-Suiyuan lines, and at Tientsin its terminals are used by the Tientsin-Pukow line.

This line was largely constructed with British capital furnished under one of the first railway loan agreements[1] negotiated by the central Chinese Government. A very considerable part of this loan has been amortized by earnings. The present administration is under a British staff, with a Chinese managing director who is under the control and supervision of the Ministry of Communications. The head office is at Tientsin.

PEKING-SUIYUAN RAILWAY.

This line consists of the former Peking-Kalgan Railway and the extension from Kalgan to Suiyuan, which is now completed and in service as far as Fengchen, about 260 miles from Peking; the part from Fengchen to Suiyuan, a distance of something over 100 miles, is now under construction. Kalgan is the present terminus of a large amount of Caravan travel from Mongolia, but it is expected that a considerable part of this, as well as other caravan travel, will come to Suiyuan when the line is completed to that point. The completed main line and branches at present total 291 miles.

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[1] The terms of certain of the railway agreements are discussed, somewhat in detail, in the chapter on "Concessions and titles in China." See p. 224.

Connections are made near Peking with the Peking-Mukden and Peking-Hankow lines.

This line was built entirely with Chinese capital and by Chinese engineers and is now controlled by the Ministry of Communications without limitations or restrictions of loan agreements. The head office is at Peking.

TIENTSIN-PUKOW RAILWAY.

The northern terminus of this line connects with the Peking-Mukden Railway at Tientsin, where the passenger station of the latter line is used. The line runs south 627 miles to the north bank of the Yangtze River at Pukow, which is directly opposite Nanking, where ferry connections are made with the Shanghai-Nanking Railway. The northern part of this line was built with German capital and the southern section with British capital. After China entered the war the Ministry of Communications dismissed the German staff and took control of the northern section, appointing exclusively Chinese operating officers. The southern section is administered largely by a British staff, through a Chinese managing director acting for the entire line. Including branches, there is a total of 688 miles of line. The head office is at Tientsin. The British staff in charge of the southern section is located at Pukow.

PEKING-HANKOW RAILWAY.

This is one of the oldest and also one of the most successful lines. There is now a total of 818 miles of main line and branches. The northern terminus is at Peking, near which city connection is made with the Peking-Mukden and the Peking-Suiyuan lines, and the south terminus is at Hankow, on the Yangtze River, about 754 miles from Peking. This line was built as a Belgian-French concession but was redeemed in 1908 by the present Franco-British loan. While the Ministry of Communications has general control of both finances and administration, the line is largely operated by a French staff with a Chinese managing director in responsible charge of the line. The head office is at Peking.

CHENG-TAI (SHANSI) RAILWAY.

This is the only meter-gauge line of the Chinese Government Railways, all the other lines being of the standard gauge, 4 feet 8½ inches. Connection is made with the Peking-Hankow Railway at Shihchiachuang, about 172 miles south of Peking, and the line runs west 151 miles through very rough country to Taiyuanfu, the capital of the Province of Shansi. It taps one of the best coal fields in China. The line was built with Franco-Belgian capital and is operated largely by a French staff under a Chinese managing director. The head office is at Shihchiachuang.

TAOKOW-CHINGHUA (TAO-CHING) RAILWAY.

This line is located in northern Honan. At Taokow, the northeastern terminus, connection is made with river and canal transportation routes to Tientsin. The line runs southwest to Chinghua and the Jamiseon mines, with a total length of line of 95 miles. Connection is made with the Peking-Hankow Railway where it is crossed at Hsinhsianghsien, about 370 miles south of Peking. This line taps the important coal fields of northern Honan forming part of one of the greatest coal fields in the world. The line was built with British capital as an operation of the Peking Syndicate (British), but the railway feature of this concession was redeemed by the Chinese Government, making this a Chinese Government Railway; the bonds for the new loan, however, are held through the Peking Syndicate and the operation of the line is under a British staff, with a Chinese Managing director in nominal charge. The head office of the Peking Syndicate is in Peking, and the head operating office of the railway is at Hsinhsianghsien in the Province of Honan.

KAIFENG-HONAN (PIENLO-LUNGHAI) LINES.

This system is known by a variety of names but is shown in the Ministry of Communications records as the Kaifeng-Honan. The eastern terminus is Hsuchowfu, where connection is made with the Tientsin-Pukow about 210 miles north of the port of Pukow. The line runs west through the Provinces of Kiangsu and Honan (and the important cities of Kaifengfu and Honanfu) a distance of about 345 miles to its present terminus at Mienchih. Connection is made with the Peking-Hankow line where it is crossed at Chengchow, about 430 miles south of Peking. An extension farther west to Sian, the capital of the Province of Shensi is under construction. The line was built and is being operated by Belgian engineers, and the capital is from French and Belgian sources. The head office is at Chengchow.

SHANGHAI-NANKING AND SHANGHAI-HANGCHOW-NINGPO RAILWAYS.

These two lines, using the same station in Shanghai, for the purpose of this report can be considered as one system. The Shanghai-Nanking line runs northwest from Shanghai through the important cities of Soochow and Chinkiang to Nanking, 193 miles distant, where ferry connections are made with the Tientsin-Pukow line. The capital for the construction of this line was raised by a British loan, and the line is operated by a British staff under a Chinese managing director, the British engineer-in-chief having extensive executive authority.

The Shanghai-Hangchow-Ningpo line runs southwest from Shanghai to Hangchow, a distance of 116 miles. The line is projected to extend from a point on the opposite side of the river at Hangchow to Ningpo, about 110 miles distant in a southeastern direction; about 50 miles of the eastern end of this line is completed and in service, but slow progress is being made on the construction of the western end. This line was constructed with Chinese capital and by Chinese engineers, but it was later covered by a British loan and its management combined with the Shanghai-Nanking. The duties of the British staffs have to do rather with the technical operation than with the executive administration. The combined head office of these lines is in Shanghai.

CANTON-HANKOW RAILWAY SYSTEM.

The main line of this system is to connect Canton and South China by a line running north through the Provinces of Kwangtung, Hunan, and Hupeh to Wuchang on the south bank of the Yangtze River opposite Hankow, the southern terminus of the Peking-Hankow Railway. At present the northern end is completed from Wuchang to Chuchow, a distance of about 230 miles, with a branch from Chuchow to the important coal mines at Pinghsiang, a total distance of 264 miles from Wuchang. This section is being operated as one of the lines of the Chinese Government Railway, with a Chinese director general and a Chinese managing director and a British technical staff. The southern end is completed from Canton to Shiuchow, a distance of 140 miles, but is now being operated as a private railway known as the Kwangtung-Yueh-Han Railway Co. (Ltd.), with a Chinese staff. This leaves about 250 miles of line still to be constructed. This railway, when completed, will probably be more important than any other line in the stabilizing and development of China as a whole.

The Canton-Samshui branch starts on the southwestern bank of the West River opposite Canton and runs southwest about 30 miles. This is operated as a Chinese Government Railway with a Chinese staff.

The Chuchow-Pinghsiang and Canton-Samshui branches were built with Chinese capital, while the Wuchang section is one of the lines covered by the Hukuang (Four Nations) Railways Loans. The head office of the north section is at Wuchang, of the Kwangtung Co. at Canton, and of the Samshui section at Canton.

CANTON-KOWLOON RAILWAY.

This line runs northwest from Kowloon (opposite the city of Victoria on the island of Hongkong) to Canton, a distance of 111 miles. The first 22 miles from Kowloon to Samchun is in the British leased territory of Kowloon and is one of the foreign railways built and controlled by the British, but as it forms a part of the through line from Hongkong to Canton it will be considered with the Chinese section and not mentioned again under the head of foreign railways. The head office of the British section is at Kowloon.

The Chinese section extends from Samchun to a point in the southeastern section of the city of Canton, a distance of 89 miles. No connection is made in Canton with the southern section of the Canton-Hankow Railway. This line was built with British capital and is operated as one of the Chinese Government Railways, with a Chinese managing director and a British staff. The British engineer-in-chief has extensive executive authority. The fixed interest charges on this line constitute a greater burden to the Ministry of Communications than any of the Chinese Government Railways, as operating charges alone have never been met by this line, to say nothing of carrying any of the fixed charges. All of the deficit has to be met by the Ministry of Communications. The head office of the Chinese section is at Canton.

CHANGCHOW (FUKIEN) RAILWAY.

This is an unimportant line of about 20 miles, starting at Sungsu across the bay from Amoy and running to the Pakkoe River at Kiangtungkiao. The line was originally planned to go to Changchow, a total distance of 33 miles from Sungsu. This line is operating as one of the Chinese Government Railways, with a Chinese staff, and the head office is at Amoy.

FOREIGN OR "CONCESSIONED" RAILWAYS.

The above term refers to the railways in China, five in number, that have been built with foreign capital, by foreign engineers, and that are controlled and operated by foreign interests under concessions from the Chinese Government. The Canton-Kowloon (British) line has already been mentioned.

SOUTH MANCHURIA RAILWAY CO.

This is the best-equipped and one of the most important railways in any part of China. It all lies in the Manchurian Provinces of Shengking and Kirin. The main line extends north from the well-equipped and ice-free port of Dairen through the important city of Mukden to Changchun, a distance of 438 miles, where connection is made with the Harbin-Changchun branch of the Chinese Eastern Railway (Russian) and the Kirin-Changchun Railway.

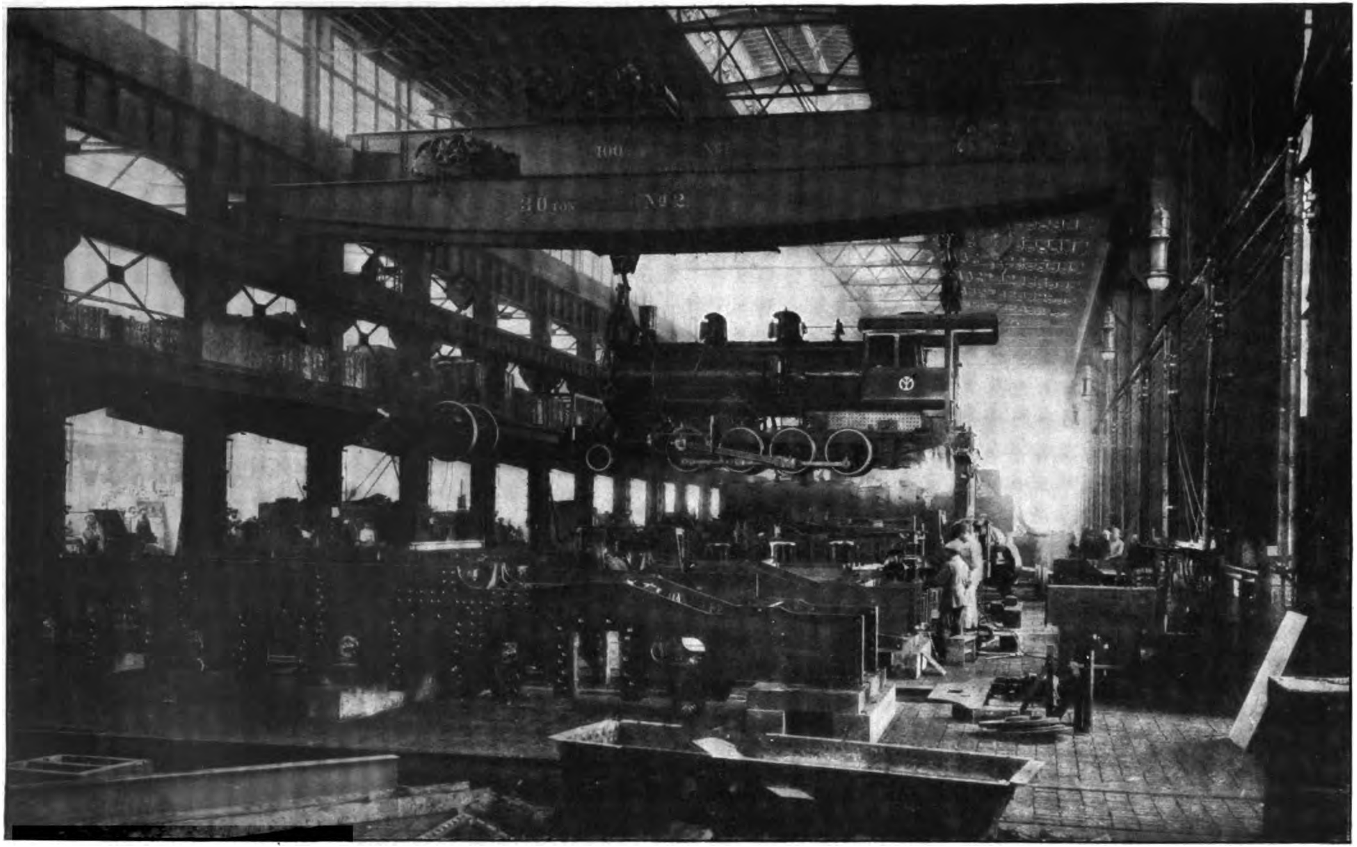
The Antung-Mukden line runs southeast from Mukden to Antung, a distance of 170 miles, where connection is made with the Korean Railways. There are important branches to the Fushun Coal Mines, to Port Arthur, and to the port of Newchwang. There is a total of 692 miles of line, all of 4 foot 8½ inch gauge.

The grant for the operation of this railway system and the other valuable concessions in this connection was taken over by Japan from Russia as one of the results of the Russo-Japanese War, in 1904 and 1905. The former Korean Government Railways are now operated as a district of the South Manchuria Railways. While the South Manchuria Railway Co. is nominally a Sino-Japanese company, a very large majority of the stock is held by the Japanese Government, which also guarantees all the outstanding debentures. The private stockholders are almost entirely Japanese, and while the terms of the concession permit Chinese to own stock, there are very few, if any, who have ever done so. The activities of the South Manchuria Railway Co. include the operation of some very valuable concessions, such as the Fushun and Yentai coal mines, the Anshan iron mines, and warehousing plants along the entire system.

The control of the railway area and the operation of the railway and the concessions is entirely in the hands of a Japanese staff. The head office and a large railway-equipment manufacturing plant are located at Dairen, in the leased territory of Kwantung, on the Liaotung Peninsula.

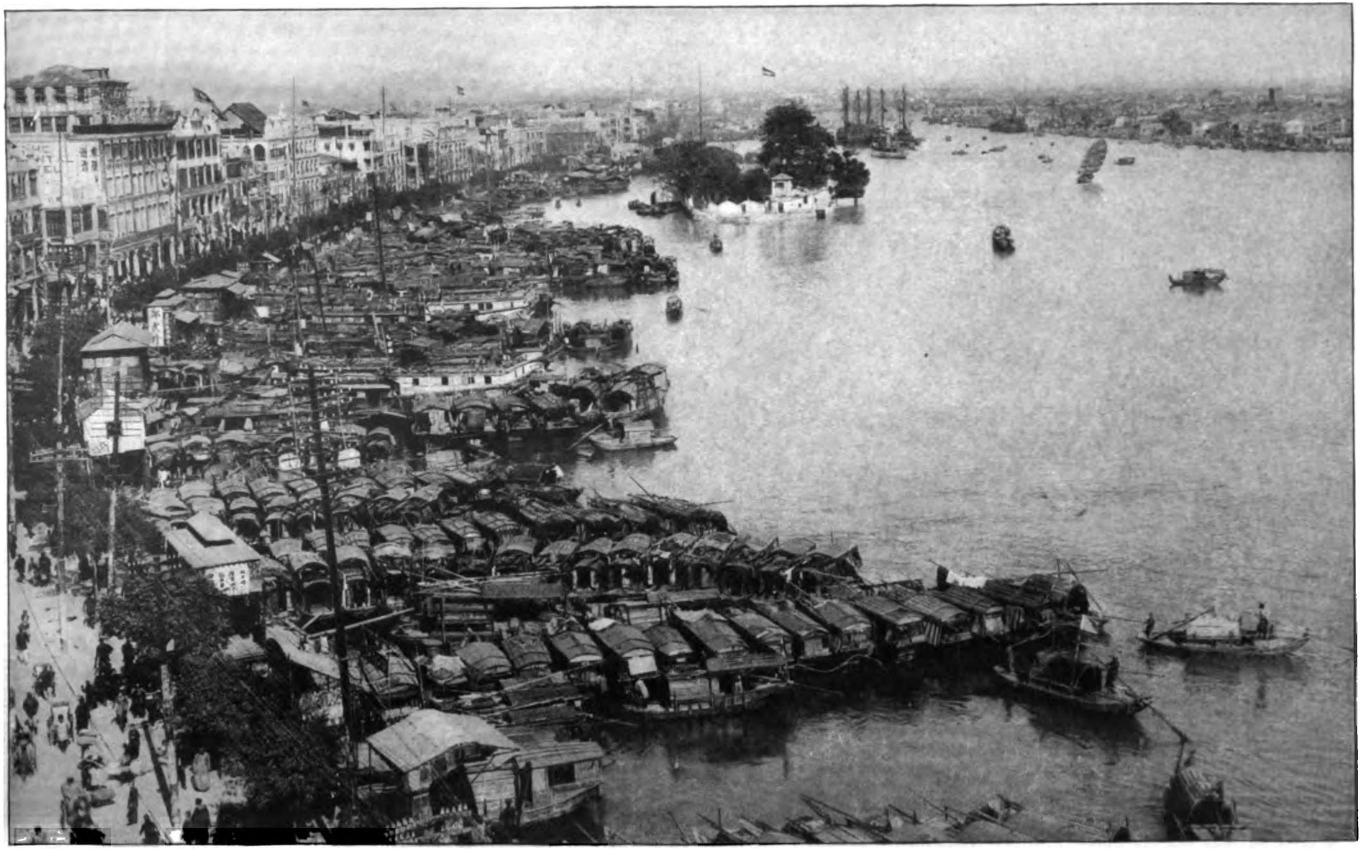
KIRIN-CHANGCHUN RAILWAY.

While this line is nominally a Chinese Government Railway, under the terms of a recent loan agreement between the Chinese Government and the Yokohama Specie Bank (Japanese) its management



Photograph by K. Adachi; courtesy of "Asia."

FIG. 8.—ENGINE-ERECTING SHOP, SHAKAKO WORKSHOPS, SOUTH MANCHURIA RAILWAY.



Photograph by C. K. Edmunds; courtesy of "Asia."

FIG. 9.—THE BUND AT CANTON.

and operation was taken over by the South Manchuria Railway Co.'s administration. The line runs from Changchun, where connection is made with the northern terminus of the South Manchuria Railway and the southern terminus of the Harbin-Changchun branch of the Chinese Eastern Railway (Russian), in a southeasterly direction a distance of about 80 miles to Kirin, the capital of the Manchurian Province of Kirin, which is located at the head of navigation on the Sungari River. Considerable extensions are contemplated by the Japanese interests now in control of the property. The head office is at Changchun.

SSUPINGKAI-CHENGCHIATUN RAILWAY.

This line, while also nominally a Chinese Government Railway, was built with funds from a loan agreement between the Chinese Government and the Yokohama Specie Bank (Japanese), and under a supplementary understanding its management and operation was practically taken over by the South Manchuria Railway administration, the agreement including the leasing of the greater part of the necessary rolling stock from the South Manchuria Co.

Connection is made at Ssupingkai with the main line of the South Manchuria Railway, whose passenger station and other facilities are used. The line runs in a northwesterly direction 52 miles to Chengchiatun, near the eastern border of Inner Mongolia, and considerable extensions are contemplated reaching into Inner Mongolia—these to be carried out by the present Japanese interest now in actual control of the property. The operation is handled by a Japanese staff, with a Chinese managing director in nominal charge. The head office is at Ssupingkai.

CHINESE EASTERN RAILWAY.

This is the Manchurian section of the Russian Trans-Siberian line. The main line extends from Pogranichnaya, on the Ussuri border, in a northwesterly direction a distance of about 926 miles to Manchuria Station, where the line crosses the Amur River into Trans-Baikalia. The Harbin-Changchun branch runs south from Harbin 152 miles to Changchun, where connection is made with the northern terminus of the South Manchuria Railway. The entire 1,078 miles of line is all of 5-foot (Russian) gauge. The line was built with Russian capital and in the past has been entirely controlled and operated by a Russian company under typical Russian methods. The head operating office is at Harbin, where there are extensive workshops.

What disposition will be made of this property as a result of the war is impossible to predict at this writing.

SHANTUNG RAILWAY.

This is the German-built railway from the port of Tsingtau, on the Bay of Kiaochow, running west through the densely settled Province of Shantung a distance of about 245 miles to Tsinanfu, the capital of the Province, where so-called connections are made with the Tientsin-Pukow Railway. On the fall of Tsingtau, in December, 1914, the Japanese took charge of this line and it is now being operated by a Japanese staff. Tsingtau is one of the best-equipped ports on the China coast. The head office of the present Japanese administration is at Tsingtau. This line is all of the standard 4-foot 8½-inch gauge.

YUNNAN RAILWAY.

This is the French meter-gauge railway running north from Laokai, on the Tongking border, a distance of 287 miles to Yunnanfu, the capital of the Province of Yunnan. The Tongking section of the line starts at the port of Haiphong and runs northwest through Hanoi to Laokai, a distance of about 248 miles. The Yunnan section of these lines passes through some very rough country, which made the line both difficult and expensive to construct. This line was constructed entirely with French capital and is now so controlled and operated. The head office is at Hanoi.

CHINESE PRIVATE RAILWAYS.

SUNNING (HSINNING) RAILWAY.

This is the only real example of a successful privately owned railway in China depending on the enterprise of one man. There are about 67 miles of line, of 4-foot 8½ inch gauge, all located in the densely populated district of Hsinning. The railway runs from Kongmoon through the cities of Sunning and Lungyik to the port of Samkaphoi. The line has been built entirely with Chinese capital under the management of a former Chinese resident of Seattle, Mr. Hee Chin Gee, who worked on the Great Northern Railway but returned to China several years ago and has since devoted all his time to this project. The line is operated entirely by a Chinese staff under the direction of Mr. Hee, who, in addition to the local head office in Sunning, has an office in Hongkong, where he handles most of the outside business of the railway.

SWATOW-CHAOCHOW RAILWAY.

This is an unimportant standard-gauge railway running from a point across the river from Swatow to Chaochow, a distance of about 27 miles. This line was built with Chinese capital, largely contributed by wealthy Chinese who had made their money in the Straits Settlements, but the line has never proved a financial success, mainly on account of the severe competition with water transportation. The head operating office is at Swatow.

CHINESE PROVINCIAL RAILWAYS.

At the present writing there are only three Chinese provincial railways, and one of these is the Nanking City Railway with about 8 miles of standard gauge, steam operated, which can best be looked upon as a city passenger railway operated with steam equipment.

KIANGSU (NAN-SHAN) RAILWAY.

This is a standard-gauge line of 87 miles running from the Yangtze River port of Kiukiang to Nanchang, the head of steam navigation on the Poyang Lake. On account of the severe competition of the water transportation, this line has never been a financial success. The line was built by Japanese engineers, partly with local Chinese capital and partly with funds from loans by the bank of Taiwan (Japanese). The present management is by a mixed Chinese-Japanese staff. The head office is at Kiukiang.

*TSITSIHAR LIGHT RAILWAY.

This is an unimportant meter-gauge line which connects with the Chinese Eastern Railway at Angangki and runs north a distance of about 17 miles to Tsitsihar, the capital of the Manchurian Province of Heilungkiang. The line was built with Chinese capital, and it is now operated under the control and direction of the government of the Province. The head office is at Tsitsihar.

CHINESE INDUSTRIAL RAILWAYS.

As yet the industrial railways of China are of small importance, but the present policy for the Government to own and operate the commercial railways, with the tendency to require the interests developing mines and other industries to build their own branches to the Government Railways and to furnish their own cars, will make the matter of industrial railways a subject of much importance in the future. The Kailan Mining Administration now owns some of the branches connecting its coal mines in the Kaiping Basin with the Peking-Mukden Railway. The Ching-Hsing Coal Co. owns over 27 miles of standard-gauge tracks at its mines in southwestern Shantung the line being known as the Tai-Tsao Railway. This company has a large coal yard and wharf on the Grand Canal near its mines, and connection is made with the Tientsin-Pukow Railway north of Hsuchowfu.

The Tayeh Railway is the most important industrial railway at the present time in China, and is the Han-Yeh-Ping Iron & Steel Co.'s 2-foot gauge line, about 17 miles in length, on which iron ore is carried from the Sztse-Shan and Tieh-Shan mines, generally known as the Tayeh iron deposits to the Yangtze River port of Hwangchow, from which point the ores are shipped by water to Hanyang (Hankow) and to Japan.

CHINESE TRAMWAYS.

Practically all the tramways in China are in the concessions or foreign settlements, the only exceptions being the electric lines in the Chinese section of Shanghai and the horse-car line in Mukden, part of which is in the Chinese section of the city. The only other tramways are the electric lines in Tientsin, Shanghai, Hongkong, and Dairen, the last two being wholly in ceded or leased territory.

CHARACTER OF RAILWAY LINES.

As indicated above, a very large percentage of the mileage is of standard 4-foot 8½-inch gauge. This is a very fortunate result, considering the large number of nationalities that participated in the building of these lines. As a rule the lines are well located and substantially constructed, although from an American viewpoint and in view of the probability of a large amount of commodity freight to be moved in the future, not enough attention was given to the securing of low-grade lines and the bridges are generally too light to carry as heavy motive power as much of the traffic warrants. The bridges seldom exceed Cooper E–40 carrying capacity and frequently are only Cooper E–35. The alignment is reasonably good, and the track is generally laid with fairly heavy rail and well tied and ballasted. The roadway and track materials generally conform to the practice of the nation furnishing the loan funds for the construction of the lines.

PASSENGER SERVICE AND FARES.

The first nine lines of the Chinese Government railways, mentioned above, furnish under normal conditions reasonably expeditious and comfortable service between the centers of population that they connect. These lines have through travel arrangements to a limited extent between the large cities, particularly on the Shanghai-Nanking, Tientsin-Pukow, Peking-Hankow, Peking-Mukden, and South Manchuria Railways, including the Korean lines, although passengers usually have to change cars at the junctions of the different lines. Both the last-named lines have ample and reasonably comfortable service on all their lines, and formerly connections were made with the Chinese Eastern Railway service at Changchun; the latter system, however, has been badly disarranged during the last few years on account of the disturbed conditions in Russia and Siberia. One detail that has to be attended to personally by all through travelers is the customs inspection of baggage at Tientsin Central, Peking, and Antung, though the last-mentioned is the only boundary point. All of the above-named lines provide sleeping and dining car service on trains where the travel warrants it.

All these lines handle passengers first, second, and third class, and a number have a fourth or coolie class that might be called a workmen's or laborers' fare. The fares on the Tientsin-Pukow can be considered typical of the average and are as follows: First class $0.06, Mex.[1], second class $0.04 Mex., third class $0.02 Mex., and coolie class $0.01 Mex. On the Peking-Suiyuan, where the passenger travel is light, the fares are $0.065, $0.04⅔, and $0.02⅓ Mex. for the first, second, and third class, the coolie class not being handled. On the Shanghai-Nanking, where water competition prevails, the fares are the lowest, and for the four classes are as follows: $0.0425, $0.0235, $0.0115, and $0.0075 Mex., respectively. The first, second, and third class rates on the South Manchuria Railway are 5 sen, 3.5 sen, and 2.8 sen, respectively, 1 gold sen being equal to ½ gold cent. The sleeping-car fares are somewhat variable, ranging from $2 Mex. on the Peking-Mukden, for the night's ride from Shanhaikwan to Peking, to $6 Mex. for the

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[1] Because of the striking changes in the value (expressed in United States currency) of the silver dollars used in China, it has been deemed impracticable in this handbook to convert "Mex." values to American gold. The term "Mex.", it should be explained, is ordinarily used in China in referring either to actual Mexican coins or to the Yuan or other silver dollars minted by the Chinese Government. During the time that the material for this handbook has been in course of preparation, the value of this silver currency has varied very widely, and it has consequently been impossible to assign, for conversion purposes, a definite value that would afford any real guide to the reader. The following values have been assigned to the "Mex." dollar by the United States Treasury Department (the value of the Hongkong dollar being practically the same): Jan. 1, 1914, $0.471 United States currency; Apr. 1, 1914, $0.458; July 1, 1914, $0.458; Oct. 1, 1914, $0.432; Jan. 1, 1915, $0.397; Apr. 1, 1915, $0.394; July 1, 1915, $0.399; Oct. 1, 1915, $0.3841; Jan. 1, 1916, $0.4172; Apr. 1, 1916, $0.4574; July 1, 1916, $0.5462; Oct. 1, 1916, $0.5397; Jan. 1, 1917, $0.5908; Apr. 1, 1917, $0.6365; July 1, 1917, $0.6543; Oct. 1, 1917, $0.7717; Jan. 1, 1918, $0.7514; Apr. 1, 1918, $0.7497; July 1, 1918, $0.7857; Oct. 1, 1918, $0.7857; Jan. 1, 1919, $0.7857; Apr. 1, 1919, $0.7857; July 1, 1919, $0.8706; Oct. 1, 1919, $0.8769.

The value of the Haikwan tael, the silver unit employed by the Maritime Customs, has varied as follows: 1914, $0.667; 1915, $0.612; 1916, $0.819; 1917, $1.08; 1918, $1.193; Oct. 1, 1919, $1.3468.

750-mile ride from Peking to Hankow. The percentage of first and second class travel is very small on all lines, the third and coolie classes constituting the very large bulk of the business—usually well over 90 per cent of all the commercial travel on all lines. All the lines are much better equipped for handling all the passenger business offered, of all classes, than they are for handling all the freight business offered, particularly heavy and bulky commodities.

The Canton-Kowloon Railway has good and expeditious service between Hongkong and Canton, similar to that between Shanghai and Nanking and with about the same low fares on account of water competition.

The meter-guage line from Haiphong to Yunnanfu has about as expeditious and comfortable service as would be expected through the country traversed.

The service on the other lines is very varied. The Shantung Railway has slow and limited but comfortable service. The Canton-Samshui and the Sunning Railways both handle largely passenger travel, nearly all third class, with only a small amount of freight.

FREIGHT SERVICE AND RATES.

The freight traffic on the Chinese railways up to the present time has been largely confined to the limits of the respective lines, and for several reasons, particularly on account of the shortage of cars, there has been a very limited amount of interchange of through business. Another restriction interfering with free movement and at times greatly limiting the length of haul is the imposition of "likin" charges, the designation for provincial taxes levied on goods in transit. The likin barriers are arbitrarily located and are frequently a great impediment to the free and natural movement of traffic. One of the very important points for traders in China to know is that ad valorem charges can be paid covering the shipment of goods from the importing port to the final destination, in place of the local likin charges (see discussion of "transit passes," on p. 85).

An analysis of the freight rates on the various Chinese railways would be entirely too voluminous for a handbook of this kind. The Peking-Mukden and Peking-Suiyuan lines are selected as typical, and the following tables show the rates in effect on these lines; it will be noticed that the Peking-Suiyuan freight rates are lowest (though the reverse is the case with the passenger fares):

Railway and units of weight.	Dangerous.	Class 1.	Class 2.	Class 3.	Class 4.
PEKING-MUKDEN RAILWAY.	*Mex. dollars.*	*Mex. dollars.*	*Mex. dollars.*	*Mex. dollars.*	*Mex. dollars.*
Per picul (133⅓ pounds)	0.060	0.0060	0.0063	0.0025	....
Per ton of car-carrying capacity	.075	.0500	.0350	.0175	....
PEKING-SUIYUAN RAILWAY.					
Per picul (133⅓ pounds)	.044	.0058	.0047	.0035	0.0028
Per ton (2,240 pounds) per mile	.073	.0580	.0470	.0320	.0200

Dangerous and offensive goods are included in the "dangerous" classification. Class 1 includes the majority of merchandise. The Peking-Suiyuan classification tends to give actually a lower rate, for the reason that there are more articles in the lower classes.

On the Peking-Mukden the minimum haul charged for is 35 miles, except in some special cases, when this is reduced to 30 miles. A demurrage charge of $10, Mexican, per day is made for a 20-ton car, and cars of other capacities are charged for pro rata for any time in excess of 12 hours for unloading or loading. The Peking-Suiyuan rate is $6, Mexican, for a 20-ton car, with cars of other capacities pro rata.

The rules regarding fines that are effective on the Peking-Suiyuan line are as follows; they are typical of those on a number of the other lines:

Rule 4.—The consignor must report to the station master the exact weight in piculs and the number of pieces of retailed goods, and if this is falsely declared he will be fined 5 times the ordinary freight on any excess weight within 10 piculs, 10 times within 20 piculs, and 30 times when it is over 20 piculs.

Rule 5.—Cars should be loaded according to their tonnage capacity. A 10-ton car can be loaded 1 picul over its carrying capacity, a 20-ton car 2 piculs, and a 30-ton car 3 piculs. The consignor will be fined 5 times the ordinary freight on any excess weight up to 1 ton, 10 times up to 2 tons, and 30 times when it is over 2 tons.

Rule 6.—Seventy per cent of the fines charged on excess weight found either at intermediate or receiving stations will belong to the station, and 30 per cent will be awarded to the discoverers. On the other hand, if the man who weighed the goods at the stations purposely gave a wrong weight, then these men and the owners of the goods must each pay half the fine, or they may be put under arrest if the case is serious.

A considerable part of the through business, particularly merchandise, is handled by forwarding companies, which at times transfer the freight at junction points—the expense involved being frequently less than the between-lines per diem charges on freight cars. One feature making this practicable is the large supply of cheap and capable labor at such points. All the lines are restricted in the amount of business that they can accept, on account of a chronic shortage of freight cars and, to a certain extent, a shortage of motive power.

The Chinese Government Railways have, on an average, about 0.2 of a locomotive, 0.4 of a passenger car, and less than 3.3 freight cars per mile of line, which is a smaller amount of equipment than is possessed by any other railways in the world with the same value of earnings or volume of traffic.

HANDLING OF PURCHASES.

The purchase of articles required for the Chinese Railways at present is largely handled by the organization in charge of the respective lines, and frequently preference is given to materials from the nation that furnished the loan funds, purchases usually being effected through a designated concern with a commercial organization in China. There is a growing tendency for the Chinese Government Railways to purchase the requirements on the open markets, and there is also some inclination on the part of the Ministry of Communications to supervise the more important of these purchases and to adopt standards to apply to all the lines. Anyone interested in the details of purchases, the railway organization, and a directory of the managing officials of the various lines should consult Special Agents Series No. 180, mentioned at the beginning of this chapter.

COMPARISON OF CHINESE AND AMERICAN RAILWAY PRACTICES.

By J. E. Baker, Adviser to the Chinese Government.

To an American business man, the establishment of any new enterprise of substantial size means getting in touch with a railway. Even if his location is on a waterway he needs the railway to reach either the sources of his raw material or the market for his product. Although the Chinese railway system is not extensive, measured by Western standards, yet it connects a network of waterways with inland points in a part of China comparable in area to that east of the Mississippi River and containing a population equal to that of the whole United States. As is shown by the map in volume 1, the Chinese system is composed almost wholly of main line, only 373 kilometers out of a total of 5,444 being branch line. Yet there are scores of mines and other resources within reasonable distances of the main line to which branches would be built if only sufficient capital to assure the industry could be interested. American readers who are contemplating activity of this sort may find in the following comparison something at least of the information that they will wish to acquire with respect to railway facilities and practice.

The mechanics of operation in China do not differ much from those in America, yet there are some points of contrast. There are generally three men to be found on each locomotive, an engineer and two firemen. Of the latter the senior in service is an understudy of the engineer, while the junior is beginning his apprenticeship by shoveling coal. Chinese enginemen are quite satisfactory. They have "assigned" runs, and hence their pride in their profession may be read in the polished brass trimmings of their machine—a decoration that has disappeared from the American locomotive. They handle the equipment much more gently than do American drivers. Anyone who has seen a Chinese chauffeur perform on the streets of Peking knows that the race likes speed. But on the railways the gratification of this taste is held in check by the almost universal use of speed recorders. Trains are started without jerks. They are stopped without jolts. Of course the schedules are slow enough to permit of "drifting" into stations, but the jolt generally is the result of not releasing the air brake at the precise moment of stopping, thereby causing the wheels to "set." It is this "set" that causes such a painful jar when a train that is barely moving stops. It is largely careful attention to the speed, a sense of mechanical touch, and instant manipulation of the brake valve that enable the Chinese to excel in the matter of smooth stops. A similar deftness is to be noted in switching operations—"shunting," it is called in China. The writer has watched yard work a good deal, and has yet to hear the cannon-like reports that proclaim the work in so many American yards. Discipline has not been difficult. Since the work is dirty, though wages are comparatively good, the personnel has come from farms and from the coolie class. As a result, official or family influence is not encountered, as it is among employees of the clerical class.

There is a chronic car shortage on most Chinese lines. Cars—"goods wagons" is the local name—are not assigned by a central car distributer as in America, but (so far as he is able to exercise such control) by the station master.

Carload shipments are, for the most part, handled in solid trains. Less-than-carload shipments generally move in mixed trains. On most lines there are two sets of rates applying to less-than-carload business—ton rates and picul rates. The picul (133⅓ pounds), though a third larger, finds its counterpart in the American hundredweight. But the writer believes that nothing like the ton rate is to be found in the United States. Its value in China is questioned. A charge is made, independent of the published rate, for loading and unloading goods. Very few firms have private spurs, and so the bulk of the traffic is loaded and unloaded on railway property. Since man power transports most of it thither or thence, "team tracks" are very much more compact than Americans are accustomed to see them.

Compared with American tariffs Chinese tariffs are simplicity itself. There are only about 500 commodities recognized in any classification, and on most of the lines nearly the entire traffic is carried on class rates. The number of classes varies from four to six. Class rates are applied on a strictly distance basis on all lines but one, the exception being the Shanghai-Hangchow-Ningpo line. Probably a total of only 500 commodity rates exist on all the Chinese Government railways. This is a very small number indeed, compared with tens of thousands of them in America. These commodity rates in China deal principally with coal and oil, but it may be surprising to know that there are two applying to newspapers. On two lines commodity rates take care of a considerable portion of the total business. One of these is the Kaifeng-Honan line, which must get its coal to market in competition with the output of other territory. The other is the Shanghai-Nanking, which has severe water competition, and to meet it has put in about 200 commodity rates. The rates on the latter line are probably the lowest in the world—averaging on all business less than half a cent (Mex.) per ton-kilometer.

In China there is no such thing as a claim. Except under special rates, everything goes at shipper's risk. The result is that a caretaker rides with every carload and that picul business is very light. Much of this small freight goes on passenger trains, either as parcels or as hand baggage. It is no uncommon sight to see baskets of live chickens or bales of green vegetables in the third-class carriages. English and American railways bear the risk of the shipment because of the old stagecoach law that was applied to them. Chinese railways have refused to assume this risk because they probably could not survive the losses from pilferage. Until steel floors became common car floors were repeatedly ruined by auger holes bored through to pierce tin cans of kerosene. A hollowed-out bamboo pole, sharpened at end and thrust into sacks of wheat or rice, makes an excellent conveyer. Handholds, coupling devices, and similar small parts of cars and locomotives must be riveted on or they are stolen.

Demurrage charges are very high. They are not uniform on the several lines and are generally based on the capacity of the car. The charge ranges from $3 per day on a 10-ton car to $20 on a 40-ton car. Until recently 12 hours free time was allowed, but this has been shortened to 6 hours by order of the Ministry of Communications. Compared with this the American "48 hours after the first 7 a. m. following placement" may be considered lax.

All rate matters are within the jurisdiction of the operating department, as Americans would call it. But contrary to this, as with so many other things, China puts operation under the control of the traffic department, whose chief is called the traffic manager. But important rate changes are referred to the Ministry of Communications.

Space forbids any comprehensive contrast of railway conditions, but the foregoing will indicate to the experienced American shipper something of the field for study in China before he locates a new industry.

CHINESE PORTS AND SHIPPING FACILITIES.

By Trade Commissioner Paul Page Whitham.

INTRODUCTION.

China's commercial contact with the outer world being chiefly by the sea, it is fortunate that the country possesses an extensive coast line with numerous harbors. While there are many small ports served by coasting steamers and native junks, the first-class ports frequented by the large trans-Pacific and European liners are few in number. Each premier port is supported by an important hinterland, and embraces within its trade influence a number of outports. Using these chief trade centers as the bases of description, it will be advantageous to indicate three divisions of China, two of the sections including a premier port. The three divisions may be designated as Central China ports, North China ports, and South China ports.

Shanghai is not only the chief port of Central China, but also the premier port of all China. Its foreign trade as indicated by the Maritime Customs reports for the year 1918 represents nearly half of the entire foreign commerce of China. Its trade importance is the result of the position of the port relative to the Yangtze basin, the rich central section of China, and to the river, which, with its tributaries, forms a great inland water highway system.

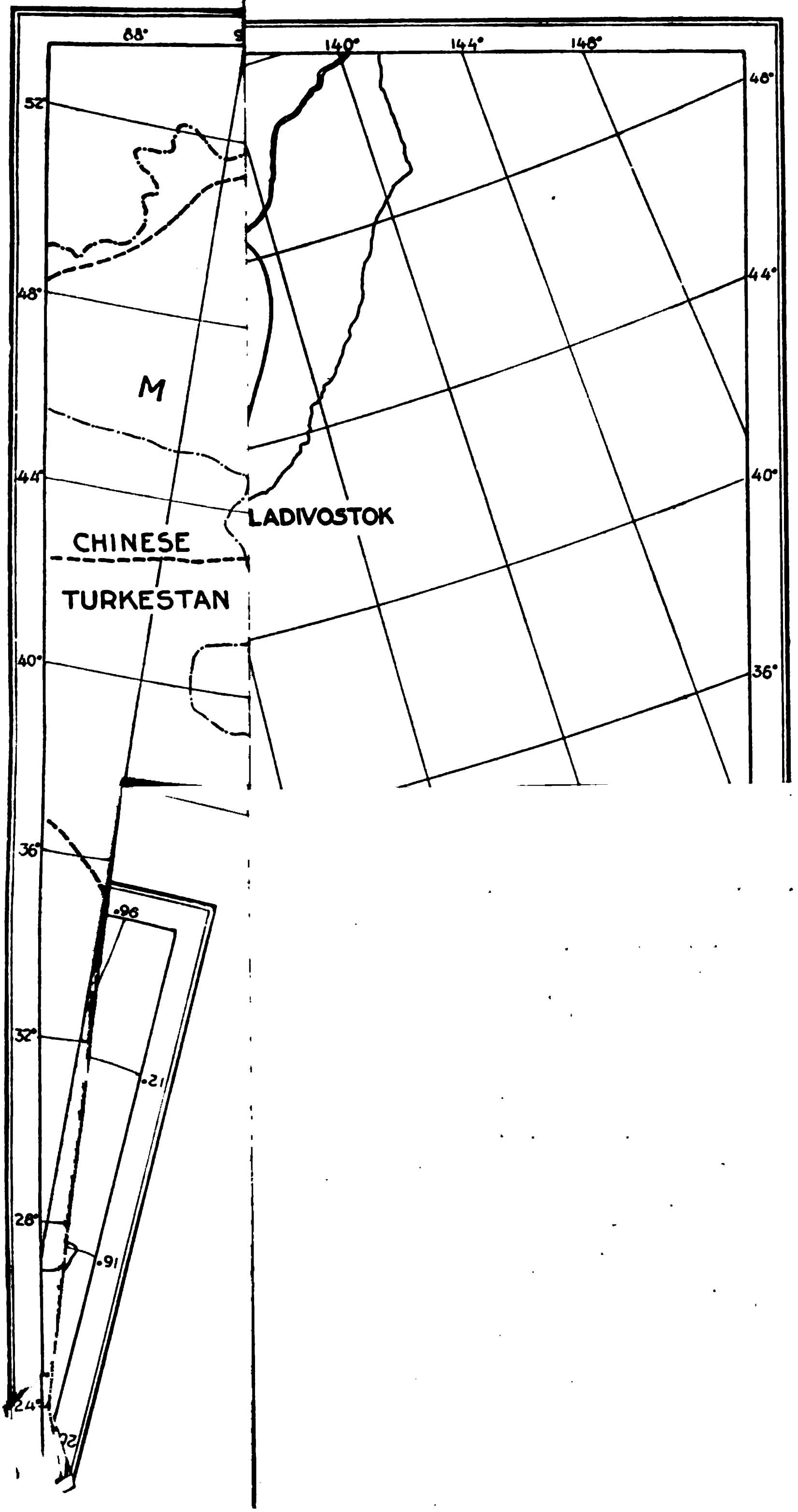
In the northern division it is not altogether clear as to which of several ports may be said to hold the chief position. Furthermore, the district is more or less tributary to Shanghai by means of the coasting steamship services. Therefore a description of the northern division would naturally follow that of the Central China ports.

The southern division contains the premier port of Hongkong, which though not Chinese (being a British colony), nevertheless serves as the gateway through which passes most of South China's foreign trade.

Following is a complete list of the treaty ports in China:

Ports.	Provinces.	By treaty with—	Year of treaty or decree.	Date of opening.
Aigun	Heilungkiang	Japan	1905	August, 1909.
Sansing	Kirin	do	1905	July, 1909.
Manchouli	Heilungkiang	do	1905	February, 1908.
Harbin	Kirin	do	1905	July, 1909.
Suifenho	do	do	1895	February, 1908.
Hunchun	do	do	1905	January, 1910.
Lungchingtsun	do	do	1905	Do.
Antung	Shengking	United States	1903	March, 1907.
Tatungkow	do	Japan	1903	October, 1907.
Dairen	do	do	1907	July, 1907.
Newchwang	do	Great Britain	1858	April, 1864.
Chinwangtao	Chihli	By imperial decree	1898	December, 1901.
Tientsin	do	Great Britain	1860	May, 1861.
Lungkow	Shantung	By Chinese Government	--------	November, 1915.
Chefoo	do	Great Britain	1858	March, 1862.
Kiaochow (Tsingtau)	do	Germany	1905	July, 1899.
Chungking	Szechwan	Great Britain	1890	March, 1891.

Miscellaneous Series No.



Ports.	Provinces.	By treaty with—	Year of treaty or decree.	Date of opening.
Ichang	Hupeh	Great Britain	1876	April, 1877.
Shasi	do	Japan	1895	October, 1896.
Changsha	Hunan	do	1903	July, 1904.
Yochow	do	By imperial decree	1898	November, 1899.
Hankow	Hupeh	Great Britain	1858	January, 1863.
Kiukiang	Kiangsi	do	1858	January, 1862.
Wuhu	Anhwei	do	1876	April, 1877.
Nanking	Kiangsu	France	1858	May, 1899.
Chinkiang	do	Great Britain	1858	April, 1861.
Shanghai	do	do	1842	November, 1843.
Soochow	do	Japan	1895	September, 1896.
Hangchow	Chekiang	do	1895	Do.
Ningpo	do	Great Britain	1842	1843.
Wenchow	do	do	1858	April, 1877.
Santuao	Fukien	By imperial decree	1898	May, 1899.
Foochow	do	Great Britain	1842	1844.
Amoy	do	do	1842	1843.
Swatow	Kwangtung	do	1858	January, 1860.
Canton	do	do	1842	1843.
Kowloon	do	do	1886	April, 1877.
Kongmoon	do	do	1902	March, 1904.
Samshui	do	do	1897	February, 1897.
Lappa	do			June, 1871.
Wuchow	Kwangsi	Great Britain	1897	June, 1897.
Nanning	do	do	1897	March, 1907.
Kiungchow	Hainan	do	1858	April, 1876.
Pakhoi	Kwangtung	do	1876	April, 1877.
Lungchow	Kwangsi	France	1886	June, 1889.
Mengtsz	Yunnan	do	1886	July, 1889.
Szemao	do	do	1895	January, 1897.
Tengyueh	do	Great Britain	1897	May, 1902.

Following is a list of the principal additional towns that have been "opened to trade"[1]:

Towns.	Province.	Manner in which town was opened to trade.
Taonan	Mongolia	By treaty with Japan, 1915.
Mukden	Shengking	By treaty with United States, 1903.
Fakumen	do	By treaty with Japan, 1905.
Fenghwangcheng	do	Do.
Hsinmintun	do	Do.
Tiehling	do	Do.
Tungkiangtze	do	Do.
Yingkow (port of Newchwang)	do	Do.
Liaoyang	do	Do.
Changchun (Kwanchengtze)	Kirin	Do.
Kirin	do	Do.
Ninguta	do	Do.
Chuitzuchien	do	By treaty with Japan, 1909.
Towtaokow Paitsaokow } Chientao	do	Do.
Tsitsihar	Heilungkiang	By treaty with Japan, 1905.
Hailar	do	Do.
Kashgar	Sinkiang	By treaty with Russia, 1860.
Chowtsun	Shantung	By imperial decree, 1904.
Tsinanfu	do	Do.
Weihaiwei	do	Leased to Great Britain.
Weihsien	do	By imperial decree, 1904.
Woosung (near Shanghai)	Kiangsu	By imperial decree, 1898.
Hongkong	Kwangtung	Ceded to Great Britain.
Macao	do	Ceded to Portugal.
Kwangchow	do	Leased to France.
Wanhsien	Szechwan	By Chinese Government, 1917.
Gartok	Tibet	By Tibetan treaty with Great Britain, 1904 (confirmed by China, 1906).
Gyantse	do	Do.
Yatung	do	By treaty with Great Britain, 1893.

CENTRAL CHINA PORTS.

The dominating factor of the transportation situation in Central China is the Yangtze River, one of the greatest of the world's navigable inland waterways. Shanghai, the chief port, is located near its mouth. Hankow, the second port in volume of trade, is situated about 585 miles above Shanghai.

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[1] In Chihli (by treaty with Japan, 1914), Chihfeng, Dolon-nor, Kweihwacheng, Hulutao, and Kalgan have been opened to trade.

There are within the Yangtze River basin the following treaty or open trading ports:

In the delta district.—Shanghai, Hangchow, Soochow, Chinkiang, and Nanking.

Up-river.—Hankow. Below Hankow: Wuhu and Kiukiang. Above Hankow: Yochow, Changsha, Shansi, Ichang, Wanhsien, and Chungking.

The coastal treaty ports of Central China are Ningpoo, Wenchow, Santuao, and Foochow. Foochow, the leading coastal outport included within the central division, marks the dividing line between the north and south districts. Trade breaks both ways—to Shanghai on the north and Hongkong on the south. In fact, it overlaps somewhat.

It should be explained that in China the term port as applied to treaty or open ports is used in its broadest sense, and such a place may not be on navigable waters, though most of them are.

TRANSPORTATION FACILITIES.

The overseas services of practically all the American and European lines makes Shanghai one of their chief ports of call. During the high-water season some of the tramp steamers and, in fact, a few of the regular freight liners run up river to Hankow.

Large river steamers ply between Shanghai and Hankow at all stages of water in the river; also small coasting steamers most of the year. En route between Shanghai and Hankow service is given to Chinkiang, Nanking, Wuhu, and Kiukiang, trading ports on the river.

Between Hankow and Ichang an intermediate type of river steamer is used, giving service en route to the treaty ports of Yochow and Shansi. At high stages of water these steamers can run from Yochow across Tungting Lake and up a branch river to Changsha. A short distance above Ichang begin the famous Yangtze gorges, which are extremely difficult to navigate. Until recent years traffic between Ichang and Wanhsien and Chungking was carried in river junks. A great deal of it is still so carried, but a few very high-powered, flat-bottomed steamers are now in service as far as Chungking. Navigation is at all times hazardous. Throughout the Yangtze River Basin small native boats operate on the numerous canals and tributary streams.

Between Shanghai and Foochow both foreign and Chinese coasting steamers render service. Some of these steamers run through to Hongkong. Wenchow and Santuao are served by small Chinese steamers with perhaps an occasional foreign boat. Chinese junks trade with all of the outports, both river and coastal. From Shanghai there are regular lines of foreign and Chinese steamers running to North China ports.

There are two Chinese Government railway lines under one management running out of Shanghai—the Shanghai-Nanking Railway, which gives a service to Soochow, Chinkiang, and Nanking, and the Shanghai-Hangchow-Ningpo Railway, which at present gives service to Hangchow. A section of the line is in operation from Ningpo toward Hangchow for about two-thirds of the way. There is good steamer service between Shanghai and Ningpo, both foreign and Chinese. Native junks also ply in the trade to Ningpo. Native inland water junks and steam launches with tows run from Shanghai to Hangchow and Soochow. The Tientsin-Pukow Railway, running from Pukow (across the river from Nanking) to Tientsin, and the Peking-Hankow line furnish a cross-country service between the Yangtze Valley and North China. The Canton-Hankow Railway, now in operation as far as Changsha, serves as a feeder to the Yangtze River traffic, and when completed will supply an overland service to South China.

YANGTZE DELTA PORTS.

SHANGHAI.

Shanghai, the commercial metropolis of China, has within the metropolitan district an estimated population of from three-quarters to a million people.

The International and French Settlements are situated on the Whangpoo River about 12 miles above its junction with the Yangtze River at Woosung. Woosung, the anchorage port for the larger liners, is also an open trading port but under the administration of the port of Shanghai.

A limited amount of wharf and godown (warehouse) space is available at Woosung, the Shanghai-Nanking Railway furnishing direct rail connections. In front of the settlement at Shanghai and for approximately 10 miles up and down on either side of the river are located numerous wharves, godowns, dry docks, and repair facilities. This gives it the appearance of, and it is in fact, one of the great world ports. It is also an important industrial center, and, while not so highly developed as in European and some American cities, the number and size of its modern factories are a source of surprise to visitors. The shipping facilities are privately owned and operated, there being no public harbor board or trust. There is, however, a Chinese-foreign organization known as the Whangpoo Conservancy Board which has charge of the improvement and approaches of the harbor.

Two large foreign lighterage companies operate fleets of lighters and tugs serving the upper harbor and Woosung anchorage. Numerous native lighters, junks, and sampans are in service at the upper harbor. There are ample wharf and godown accommodations for the present shipping. The anticipated increased commerce after the war, however, may necessitate the construction of additional facilities in the near future. Shanghai is quite well provided with shipbuilding and repair works. In addition to the Chinese Government naval yard there are several private concerns. There are a number of graving docks of sufficient capacity to accommodate seagoing steamers of intermediate size. The largest dock is of the following dimensions: Length, 532 feet; width, entrance, 77 feet; depth, sill, 23 feet.

The city is built on the low-lying delta plain, much of the ground requiring a few feet of fill prior to building operations. The Whangpoo is a tidal estuary not subject to floods, though affected slightly by high water in the Yangtze River.

Improvements instituted by the Conservancy Board have produced a channel in the Whangpoo 24 feet in depth and from 400 to 600 feet wide in the narrow reaches. In the vicinity of the foreign settlements there are anchorage places with a depth of more than 30 feet at low water.

At the Woosung anchorage in the southern arm of the Yangtze River there is ample depth for the largest steamers. Below Woosung the Yangtze bar offers some difficulties, the minimum depth being 16 feet, so that large steamers have to time arrivals and departures according to tide. At high water, neaps, there is 20 to 28 feet, and ordinary springs 30 feet. The Conservancy Board is now conducting studies with a view to bettering conditions at the bar.

The direct foreign trade of Shanghai for 1918, as indicated by the Maritime Customs returns, was: Imports, 214,967,907 taels[1]; exports, 201,290,843 taels; total, 416,258,750 taels. (Customs values in this chapter are given in Haikwan taels; the present value of the tael is more than $1 United States currency, though normally it is worth only about $0.72.)

The Yangtze delta ports near Shanghai are Hangchow, Soochow, Chinkiang, and Nanking, Hangchow and Nanking being at the extreme edges of the delta formation.

HANGCHOW.

Hangchow, about 120 miles southwest of Shanghai, is situated on the Chientang River near the point of its debouch into Hangchow Bay. Hangchow Bay is too shallow for steamer navigation. The bay being funnel-shaped, the mouth of the river is visited periodically by a bore, or tidal wave, which is dangerous to navigation. Hangchow is the southern terminus of the Grand Canal, the northern end of which is at Tientsin. In former years it was one of the most prosperous cities in the Chinese Empire, and to-day, while of only local commercial importance, it attracts many visitors on account of the beauty of its setting and surroundings. The estimated population is about 500,000. It is an important manufacturing center, silk weaving taking first place. There are no port facilities in the modern sense. Connections with Shanghai are by railway, steam launches, and native boats. The direct foreign trade[2] for 1918, as given in the Maritime Customs report, was: Imports, 195,624 taels; exports, none. The trade is chiefly through Shanghai.

SOOCHOW.

Soochow, with an estimated population of approximately 500,000, is another important manufacturing place in which the silk industry is a large factor, as also are the textile industries generally. It is located on the Grand Canal 54 miles west of Shanghai by railway. There are no port facilities in the modern sense, the water traffic being borne by steam launches and native boats traversing the canals. There is a foreign settlement outside the walls. The direct foreign trade of the port for 1918, as given in the Maritime Customs report, was: Imports, 31,985 taels; exports, none.

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[1] See second paragraph of footnote on p. 124.

[2] The figures for "direct foreign trade" represent only the merchandise that is carried directly to and from foreign countries without passing through other Chinese ports. Many ports in China do most of their business through other more important ports. In the case of Hangchow, for instance, the *total* trade for 1918 amounted to 18,688,082 taels.

CHINKIANG.

Chinkiang is situated on the Yangtze River near the junction with the Grand Canal, crossing about 150 miles above the mouth of the river. It is 150 miles by rail northeast of Shanghai. The estimated population is between 150,000 and 200,000. Commercially the port is not so important as formerly. A bar forming in front of the city is tending to make it difficult of approach by the Yangtze River steamers. The direct foreign trade of the port for 1918, as indicated by the customs returns, was: Imports, 4,373,912 taels; exports, 562,691 taels; total, 4,936,603 taels.

NANKING.

Nanking, situated on the Yangtze River, is 215 miles from Shanghai by water and 193 miles by rail. At one time it was the capital of China. Its great wall, still standing, is 24 miles in circumference. The population, estimated at 300,000 to 350,000, is much smaller than in former times. The native industries of Nanking were practically wiped out at the time of the sack of the city during the Taiping rebellion in 1853. Since then only partial recovery has been made and modern industries are only beginning. The port really includes Pukow on the opposite side of the river, the southern terminus of the Tientsin-Pukow Railway. Deep-sea ships can and do come to the port at all times of the year. It is the point of ferry service between the Shanghai-Nanking and the northern railway. If the projected schemes are carried out, the port should become an important shipping and industrial center.

On both the Pukow and the Nanking sides of the river are located "hulks" or floating wharves, and both railways maintain large land godowns. The modern business section of Nanking is on the river front, outside of the walled city. On the Pukow side there are few people other than railway employees. The direct foreign trade of the Nanking-Pukow district for 1918 was: Imports, 1,659,805 taels; exports, 2,189,900 taels; total, 3,849,705 taels.

YANGTZE UP-RIVER PORTS.

HANKOW.

Hankow, the great central city, sometimes called the Chicago of China, is located at the junction of the Han with the Yangtze River, about 585 miles above Shanghai. The metropolitan district includes three cities, Hankow, Hanyang, and Wuchang, with a combined population estimated at 1,300,000 to 1,500,000. The population of Hankow alone is estimated to be 800,000. Hankow and Hanyang are located on the northern side of the river, Hankow on the east and Hanyang on the west side of the Han River. Wuchang is located on the southern bank of the Yangtze River. Next to Shanghai, Hankow is the chief industrial center of China. In Hanyang is located the Hanyang Steel Works, the largest of its kind in China.

The British, Russian, French, German, and Japanese concessions and foreign settlement are located adjoining one another, at the lower side of the native city of Hankow.

On the Hankow side are located the terminals of the Peking-Hankow Railway, while opposite, on the Wuchang side, are the terminals of the Canton-Hankow Railway, which has been completed recently as far as Changsha. When the remaining section between Changsha and Shiuchow in Kwangtung Province is completed, it will close the existing gap in the north-and-south Peking-Canton trunk line of China.

The chief shipping facilities of the port consist of a series of "hulks" or floating godowns, mostly located in front of the foreign settlement on the Hankow side. Back of these hulks on the land are located the storage godowns of the various trading and steamship companies. After the Hankow-Canton line gets into full operation, undoubtedly similar facilities will be provided on the Wuchang side. The Han River for several miles of its length is the crowded haven of steam launches and river junks. As previously stated, seagoing vessels come to Hankow during high-water stages of the river, making it virtually a seaport.

The direct foreign trade of the port for 1918 was: Imports, 30,974,893 taels; exports, 10,586,407 taels; total, 41,561,300 taels.

PORTS BELOW HANKOW: WUHU.

Wuhu is situated on the Yangtze River about 264 miles above Shanghai. It is a rather thriving port with an estimated population of about 100,000. The commercial importance of the city arises from its location in relation to the rich tea and silk district of the southeastern section of Anhwei Province. It is the center of an important system of canals.

The shipping facilities consist of the usual "hulks" or floating wharves in use all up and down the Yangtze River. The reason for their use is the excessive range between the flood and low-water levels, which varies from about 20 feet at Nanking to about 50 feet at Hankow and 60 feet at Ichang.

The direct foreign trade of the port for 1918 was: Imports, 1,908,152 taels; exports, 600,657 taels; total, 2,508,809.

KIUKIANG.

Kiukiang, situated on the Yangtze River about 450 miles above Shanghai and 135 miles below Hankow, is the trading port for the Poyang Lake district and a large part of Kiangsi Province. It has an estimated population of 40,000 to 50,000. Steam launches and, at certain seasons, steamers operate through Poyang Lake up to Nanchang, the chief city of the Province and the center of an important tea-raising district. Near Kiukiang is the famous Kuling summer resort on a group of high mountains. The direct foreign trade of the port for 1918, as shown in the Maritime Customs report, was: Imports, 1,538,105 taels; exports, 1,996 taels; total, 1,540,101 taels.

PORTS ABOVE HANKOW: YOCHOW.

Yochow, situated near the Yangtze River at the outlet of Tungting Lake, is the port of call for the Hankow-Ichang steamers where transfer is made to steam launches and native boats running to Changsha and lake points. During high water these upriver steamers at times run to or near Changsha. The recently completed Wuchang-Yochow-Changsha section of the Canton-Hankow Railway will probably prove a strong competitor of the longer water route, especially during the low stages. The population of the town is about 10,000. The shipping facilities are located 5 miles below Yochow at a place called Chengling, where better protection is afforded small craft. The direct foreign trade of the port for 1918 was: Imports, 4,895 taels; exports, none.

CHANGSHA.

Changsha, the capital and chief city of Hunan Province, is situated on the Hsiang River about 100 miles south of Yochow. It has an estimated population of 400,000 to 500,000. It is an enterprising, progressive city. An important feature of its trade is the exportation of coal and coke from the nearby Pinghsiang collieries. The direct foreign trade of the port for 1918 was: Imports, 2,028,971 taels; exports, 1,248 taels; total, 2,030,219 taels.

SHASI.

Shasi, situated on the Yangtze River about 85 miles below Ichang, is an important port of call of the Hankow-Ichang steamers. It is situated in the heart of a rich agricultural district. Built behind dikes, it occasionally suffers from devastating floods. The various transportation companies maintain the usual hulks or pontoon wharves. The direct foreign trade of the port for 1918, as given in the Maritime Customs report, was: Imports, 350,820 taels; exports, 11 taels; total, 350,831 taels.

ICHANG.

Ichang, situated a short distance below the Yangtze gorges, is about 393 miles above Hankow or 978 miles above Shanghai. It is the transfer point between the Hankow-Ichang steamers and the junks and powerful shallow-draft steamers that navigate the rapids up to Chungking. The surrounding country is mountainous. In many ways Ichang is an up-to-date, thriving city. The population is estimated to be about 50,000. The direct foreign trade of the port for 1918 was: Imports, 445,725 taels; exports, none.

CHUNGKING.

Chungking, on the Yangtze River about 1,400 miles from the sea, is the commercial gateway to the wonderfully rich Province of Szechwan, with a population estimated by some as high as 70,000,000. Trade from portions of Tibet also pass through the port. The estimated population of the city is 300,000 to 400,000. The ordinary rise of the river at Chungking is 75 feet, the highest record being 108 feet. Small high-powered steamers and junks go on up the river as far as Suifu and the native boats navigate the smaller streams draining the Szechwan basin. The direct foreign trade of the port for 1918 was: Imports, 437,512 taels; exports, 207,077 taels; total, 644,589 taels.

WANHSIEN.

Wanhsien is an unimportant way port situated on the Yangtze River about midway between Ichang and Chungking.

COASTAL PORTS.

NINGPO.

Ningpo, on the peninsula south of Hangchow Bay, is situated on the Yung River about 22 miles above its mouth. It is about 140 miles from Shanghai by steamer route. Its estimated population is 250,000 to 300,000. Formerly, before the rise of Shanghai, it was the chief port of that part of China. That was in the days of small sailing vessels and before the decadence of the Grand Canal. It is situated in a fertile plain. The direct foreign trade of the port for 1918, as given in the Maritime Customs report, was: Imports, 3,067,072 taels; exports, 7,137 taels; total, 3,074,209 taels.

WENCHOW.

Wenchow, about midway down the coast between Ningpo and Foochow, has an estimated population of 100,000 to 125,000. The approaches of the port are shoal, so that it is frequented only by small steamers and junks. The direct foreign trade of the port for 1918 was: Imports, 22,222 taels; exports, 292 taels; total, 22,514 taels.

SANTUAO.

Santuao, on Samsa Inlet about 70 miles north of Foochow, possesses one of the finest natural harbors in all China. On account of lack of communications to the interior the port is of small commercial importance. Its population is estimated to be 8,000. The direct foreign trade of the port for 1918 was: Imports, 24,622 taels; exports, 5,358 taels; total, 29,980 taels.

FOOCHOW.

Foochow, the chief city of Fukien Province, is situated on the Min River about 34 miles from the sea. It is approximately midway between Shanghai and Hongkong and for descriptive purposes has been chosen as the dividing line between Central and South China ports. It is estimated that its populations is about 600,000.

The coasting steamers stop at Pagoda Anchorage, about 9½ miles below the city. From there to the city cargo is transported in small native boats and launches. Even these find the river difficult of navigation at low water. Recently the local officials became interested and plans are being prepared for the improvement of the river so as to provide a 10-foot channel from Pagoda Anchorage to Foochow. The depth limit of the channel from the sea to Pagoda Anchorage is 25 feet, high water. At Pagoda Anchorage is a Government arsenal and a small dry dock 300 feet long. The scenic attractions of Foochow and its environs are notable. At one time Foochow was a famous tea port, but with the promotion and advertisement of India and Ceylon teas in the markets of the United Kingdom the tea trade of the port has diminished.

The direct foreign trade of the port for 1918 was: Imports, 4,134,394 taels; exports, 3,514,500 taels; total, 7,648,894 taels.

NORTH CHINA PORTS.

North China is rather less fortunate than other sections in the matter of good ports. The Gulf of Chihli is shallow, so that its shores for the most part can not be approached by deep-draft or even moderate-draft vessels. Furthermore, during the winter ice forms in the gulf, and usually for several months each year Taku (the steamer anchorage at the mouth of the river), Tientsin, and Newchwang are frozen and closed to navigation. Chinwangtao, the coal shipping port, is an exception. While ice forms in the port, it is not closed to navigation, except perhaps for a day or two during the midwinter season. The two peninsulas inclosing the gulf—that is, Liaotung and Shantung, are mountainous, with more rapidly shelving shores. As a result good harbors are found thereon. The chief ports are Dairen (formerly called Dalny), in Japanese leased territory at the point of the Liaotung Peninsula, and Tsingtau, on Kiaochow Bay, formerly German leased territory but now temporarily occupied by the Japanese. The disadvantage in both instances is the long rail haul from the two large producing areas—offset, however, by the superiority of the harbors and the fact that they are ice-free.

TRANSPORTATION FACILITIES.

North China does not possess a premier port or chief shipping center corresponding to Shanghai, Hongkong, or Kobe. As a matter of fact, its harbors are virtually outports to Shanghai and Kobe. That is, the large trans-Pacific and European liners do not habitually call at the North China ports, their shipping being handled by coasting and intermediate-type steamers, plying from Shanghai or Kobe. Dairen is to a certain extent an exception, as a number of intermediate-type steamers running to the Pacific coast of America made it a port of call before the war. The German Asiatic lines made Tsingtau a port of call and in some cases the terminal. Kobe has become a big factor in the trade of the North China ports as the result of the establishment of coasting services based on that port. These smaller light-draft vessels transfer their cargoes at Kobe to and from the big ships. The coasters operating from Shanghai, Chinese and British, are still a strong factor in the trade. Both the Shanghai and Kobe steamship services ply to Tsingtau, Chefoo, Dairen, Antung, Tientsin (Taku anchorage), Chinwangtao, and Newchwang. Weihaiwei, British leased territory, on the point of the Shantung Peninsula, is undeveloped commercially, being used chiefly as a summer naval base.

In addition to the steamer services, Chinese seagoing junks ply all along the coast and smaller native boats ply such streams as the Yalu and Liao Rivers in Manchuria, the rivers about Tientsin, and portions of the Grand Canal, of which Tientsin is the northern terminus. An American firm was recently awarded a contract for the reconstruction of the Grand Canal through Chihli and Shantung Provinces; this will materially add to its effective value as an artery of transportation.

North China is better served with railways than other sections. The port of Tientsin is connected with Peking and northern Shansi Province by railway. The Tientsin-Pukow line and the Peking-Hankow line connect it with much of Chihli and Shantung Provinces to the south. The Peking-Mukden Railway connects the ports of Tientsin and Chinwangtao with southern Manchuria, and a branch line runs to Newchang. The South Manchuria Railway (Japanese), which terminates at Dairen, runs through the heart of Manchuria and by connection with the Chinese Eastern Railway (Trans-Siberian, Russian) reaches much of northern Manchuria. A branch runs to Newchang, and another branch connects with the Chosen (Korean) Railway system at Antung on the Yalu River. Tsingtau is connected with the interior by the Tsingtau-Tsinuanfu (Shantung, or Santo) Railway—formerly German, but now operated by the Japanese.

DESCRIPTION OF THE PORTS.

TIENTSIN.

Tientsin is the chief commercial city of North China and also one of the most important industrial cities in all of China. It is situated on the Pei River at the head of navigation for seagoing vessels and junks, about 35 miles above Taku Bar. During low water many steamers can not get over the bar and are forced to anchor outside, transferring their cargoes to lighters and junks. Under the direction of the Conservancy Board some improvement of the bar and river channel has been made. The duration of the closed season due to ice has been reduced by the use of ice breakers. The harbor improvement work is so interwoven with the problem of flood prevention that a new board, including some foreigners, has been appointed by the Chinese Government with power to proceed with the solution of the combined problems. There is a native and a foreign city, the various commercial nations except the United States having important concessions of territory in which to live and do business; consequently the city is quite foreign in its appearance. The estimated population is 750,000 to 1,000,000. The port is not equipped with wharves and warehouses in the modern sense, but is well supplied with godowns owned by native and foreign trading companies. The direct foreign trade of the port for 1918, as indicated in the customs returns, was: Imports, 59,367,823 taels; exports, 26,822,971 taels; total, 86,190,794 taels.

DAIREN.

Dairen (Dalny) is situated in Japanese leased territory near Port Arthur, made famous during the Russo-Japanese War. It is located on a splendid deep-water harbor. The excellent municipal plans made by the Russians have been carried out and extended by the Japanese until Dairen is in many respects one of the notable cities of the world from the standpoint of scientific and orderly development.

The harbor and railway terminal facilities of the South Manchuria Railway are among the very best in the Far East, there being a number of commodious piers and many modern godowns or warehouses. Steamers drawing 30 feet of water can berth at the docks at low tide. Dairen is the chief soya-bean and bean-oil exporting port of Manchuria. There is a graving dock 430 feet in length, together with ship-repair facilities. The harbor is easy of access from the sea. Dairen, together with the Kwantung Leased Territory, is under

Japanese administration. The customs, however, remain under the Chinese Maritime Customs administration. The population of the city is about 50,000. The direct foreign trade of the port for 1918 was: Imports, 66,979,626 taels; exports, 80,976,072 taels; total, 147,955,698 taels.

NEWCHWANG.

Newchwang, situated about 30 miles up the Liao River, was formerly the chief port of Manchuria. Its trade has decreased since Dairen has risen to the leading position. Like Tientsin, Newchwang has ice and river-bar difficulties. During midwinter it is closed on account of ice. Recently the approach has improved as a result of river training work carried on by the Conservancy Board. The port is frequented by seagoing junks and the intermediate-sized coasting steamers. There are a number of good riverside wharves, back of which are the godowns of the various transportation companies. The branch of the South Manchuria Railway has its terminals on the Newchwang side of the river. Those of the Peking-Mukden Railway branch are across the river a short distance below the main town. There is a foreign settlement of quite modern appearance. The estimated population is about 50,000. The direct foreign trade of the port for 1918 was: Imports, 4,934,723 taels; exports, 4,259,900 taels; total, 9,194,623 taels.

CHINWANGTAO.

Chinwangtao, on the Gulf of Chihli, came into being as the shipping port for the Kailan Mining Administration, the largest operating coal property in China. The harbor is partly artificial, being located on a broad open bay or bight. The two piers are protected by a breakwater. The chief business is the shipping of coal, though some merchandise is handled, particularly during the winter season when Tientsin is closed by ice. Steamers drawing 24 feet of water are accommodated at the docks. The population of the town is estimated to be about 5,000. The direct foreign trade of the port for 1918, as indicated by the Maritime Customs report, was: Imports, 3,636,468 taels; exports, 3,576,965 taels; total, 7,213,433 taels.

ANTUNG.

Antung, located about 25 miles up the Yalu River, is chiefly a lumber-exporting port for the Yalu Basin. The river forms the boundary line between China and Chosen. Antung itself can be reached during favorable tides by steamers drawing 12 feet of water; consequently the coasting steamers generally anchor at the subport of Tatungkow near the mouth of the river, the goods being transferred to lighters. The timber is brought down from the interior in rafts. There are a number of very good waterside godowns maintained by the South Manchuria Railway, in addition to a number of private warehouses. The Japanese have an important settlement built up in foreign style. The estimated population of Antung is 45,000. The direct foreign trade of the port for 1918 (including Tatungkow) was: Imports, 21,808,484 taels; exports, 11,777,247 taels; total, 33,585,731 taels.

CHEFOO.

Chefoo is situated on the northern side of Shantung Peninsula almost directly across the strait from Dairen. The harbor is well protected from the southerly winds, but in the winter, during the northerly blows, shipping is inconvenienced. An effort is under way to give protection by means of a breakwater now under construction. Fruit growing in the vicinity of Chefoo has increased to such an extent that the product has become an important factor in the trade of the port. It is also the shipping point for pongee silks, groundnuts, straw braid, laces, etc. The population is estimated to be 55,000. Lungkow, east of Chefoo, was recently opened to trade, a steamer service being in operation between there and Dairen. The direct foreign trade of Chefoo for 1918 was: Imports, 6,366,051 taels; exports, 4,612,371 taels; total, 10,978,422 taels.

TSINGTAU.

Tsingtau, in the leased territory of Kiaochow, is situated near the entrance of Kiaochow Bay, one of the best harbors in China and capable of accommodating the deepest draft vessels. Where previously there was only a small fishing village, the Germans built a model city, architecturally a piece of Germany transplanted in China. A modern marine and railway terminal was constructed, probably the best in the Orient. Two large piers are provided with great sheds or godowns, and on the property back of the piers are located first-class warehouses. The railway tracks run out onto the piers, making possible direct ship-to-rail transfer. Since its occupation by Japan thousands of Japanese have moved in and much new building has taken place. Its position and good harbor justify the prediction that Tsingtau may become one of the chief ports of North China. The estimated population is 77,000. The direct foreign trade of the port for 1918, as indicated in the report of the Chinese Maritime Customs, was: Imports, 16,973,786 taels; exports, 15,408,331 taels; total, 32,382,117 taels.

SOUTH CHINA PORTS.

The territory included in this division embraces the coast line between Foochow and the Tongking border of French Indo-China. It also takes into account Haiphong, which by virtue of the Haiphong-Yunnanfu Railway is an important factor in the trade of Yunnan Province. Reference should be made to Manila, 640 miles from Hongkong, which is in a position to become an influence in the trade of South China in particular. Apparently little effort has been made so far to grasp the opportunities lying in that direction. Manila offers a splendid site upon which to develop a marine terminal of the first magnitude. All that is required to make of it a great world port is the proper extension of its trade connections with China and other Far Eastern countries, and the fostering of the artificial conditions favoring such expansion. The full development of the Philippine Islands alone will make Manila a great port.

TRANSPORTATION FACILITIES.

Hongkong is the terminus or the port of call of practically all the regular lines running from American and European ports to China and the Far East. Coasting steamers ply regularly from Hongkong to Swatow, Amoy, Foochow, and Keelung (in Formosa), and some of the coasters run through to Shanghai. There is also a steamer service between Keelung and Shanghai. Westward regular runs are made to Kwangchow, Hoihow, Pakhoi, and Haiphong. In addition to the regular liners there are local steamers operating between Hongkong and Macao. On the Hongkong-Canton run good services are maintained by well-appointed inland steamers, both Chinese and foreign. Lines of Chinese and British river steamers operate from Hongkong to Wuchow on the West River, where connections are made with the large fleet of Chinese motor boats plying on the upper river and its tributaries. There is a Chinese line of steamers from Canton to Wuchow, and from Canton to Macao and other delta towns. Native junks ply all along the coast in the delta district and up many of the rivers and streams back of Canton. A large traffic is carried on throughout the Canton Delta district by means of launches towing passenger and freight junks.

Railways are not an important factor as yet in South China, there being only a few short lines, as follows:

The Canton-Samshui Railway.

The Canton-Kowloon Railway.

The Yueh-Han Railway, running from Canton to Shiuchow, this line forming a part of the uncompleted Canton-Hankow-Peking trunk line.

The Sunning Railway, operating between Kongmoon and Chunglow.

The Chaochow-Swatow Railway.

The Amoy-Chungchow Railway.

The French Haiphong-Yunnanfu Railway, about half of which is in Chinese territory and the other half in French Indo-China.

DESCRIPTION OF THE PORTS.

HONGKONG.

Hongkong, the chief port of South China, is one of the great ports of the world. The shipping tonnage passing through its roadstead has at times exceeded that of New York. The value of actual imports and exports is estimated to be about $250,000,000 in normal times.

Hongkong's far-reaching influence in the trade not only of South China but of the entire Orient has come about through its position at a natural crossroads of commerce and as a result of the broad, far-sighted policy of the British, who established it as a free port. Their policy has permitted commercial people of all nations to use it as a base for trade activities. By their own efforts, rather than by any advantages retained for themselves, the British have maintained a dominant position in the commerce and shipping of the port.

Victoria, the city on Hongkong Island, is practically unknown by that name, the designation Hongkong being universally known and accepted. The colony of Hongkong includes the islands of that name, ceded to the British in 1841, and the mainland with adjacent islands, conceded in the conventions of 1860 and 1898. The last concession was in the form of a 99-year lease. The peninsula and islands embraced within the colony are of a rugged, mountainous character, the opportunities for cultivation being limited. The "Peak" on

Hongkong Island has an elevation of 1,809 feet (some of the mountains on the mainland are still higher), the residential sites on the hills affording a view of notable beauty and picturesqueness. The chief business district is situated at the foot of the hills directly opposite Kowloon Point. In later years, especially since the completion of the Kowloon-Canton Railway, the expansion of shipping facilities has taken place mostly on the mainland side, where there is a greater area of suitable property.

The population of the colony in 1911 was 456,739—12,075 of whom were non-Chinese. Exclusive of the military, the white population was 6,035. Hongkong being free from customs duties, no complete records have been kept of the trade of the port, which is estimated to amount to about $250,000,000 gold per year.

The harbor, which is the strait between the mainland and Hongkong Island, possesses the advantage of two entrance channels. In fact, there are really three if the route of river steamers plying to Canton is counted. In the main channel or north entrance the minimum depth is 33 feet at low water. The southerly and Canton channels have a minimum low-water depth of 30 feet; however, there is a shoal west of Kowloon Point that must be crossed with a low-water depth of only 25½ feet. The main anchorage has a depth of from 36 to more than 40 feet at low water. The port can accommodate the largest liners.

A large proportion of the cargo at Hongkong is handled by means of lighters serving ships at anchor. There are only two terminals at which large steamers can come alongside. On the Hongkong front are several small jetties or piers at which the Canton and West River steamers and coasting vessels tie up. On both sides of the harbor are numerous private godowns and a few open to public business. The chief wharf and godown plant, belonging to the Kowloon Wharf & Godown Co., is located on the southern side of Kowloon Point, where there are several uncovered piers or jetties. At these piers several of the large trans-Pacific liners are accommodated. The next in size are the Holt wharves and godowns, used principally by the "Blue Funnel" boats; the terminal is situated on the northern corner of Kowloon Point.

There are two large shipbuilding and dock companies. The Hongkong & Whampoa Dock Co. (Ltd.) has three graving docks and two marine ways. The largest dock has a length of 700 feet and can acommodate the largest Pacific liners. The Taiku Dock Yard & Engineering Works (Ltd.) has a graving dock 787 feet long and a large marine way. The port is equipped with cranes that can handle lifts up to 100 tons. The Canton-Kowloon Railway terminus is located on Kowloon Point (opposite the chief business section of Hongkong), on the northern side of Kowloon Peninsula. The railway owns an extensive water frontage where it is proposed to erect a system of wharves and godowns with rail service, when business justifies. On the whole, Hongkong is well equipped to handle the business of a first-class port.

CANTON.

Hongkong is the deep-sea port for Canton and the rich West River delta country with which it is connected by railway and river steamer service. Canton is not only the metropolis of South China but is one of the wealthiest and largest cities in all China. It is estimated to have a population of more than 1,500,000. It has been longest in contact with foreigners, for which reason, perhaps, it has absorbed western ideas to a larger extent than is the case elsewhere in China. Most of the Chinese that emigrated to America in early days came from the Canton district, and many of them, returning with wealth accumulated in the United States, have exerted an influence in Canton's modern development. The old walled city is about 6 miles in circumference. The city has outgrown the walls and now stretches along the Pearl River for a distance of approximately 5 miles, with a large suburb on Honam Island across the river.

Commercial activities are well developed. The Chinese themselves built a wide Bund street 2 miles or more in length upon which fronts a row of business buildings that are quite imposing. It compares favorably with the Bund in the foreign settlement at Shanghai. Most of the foreign business houses are located on Shameen. a small artificial island. There is a fair beginning of an industrial development, but Canton is not so far advanced in that respect as Shanghai. There are few modern docks or wharves, though along the Bund there are small quay landings that accommodate the river steamers and launches and junks. One British firm has an up-to-date wharf and godown terminal for its own use on the west side of Honam Island. Many of the foreign firms maintain godowns on Shameen where the goods are brought in lighters and native sampans. The few coasting steamers that make the upper port anchor off Shameen, where they work cargo into lighters. The channel of about 12-feet depth does not permit full cargoes being taken out. At Whampoa, about 12 miles down the river, there is an anchorage with a depth of 24 feet or better that is used at times by coasting steamers which transfer cargo to lighters. It is in the vicinity of Whampoa that it is proposed to build a port terminal, which, when the proposed channel betterments are made, will accommodate coasting vessels drawing 20 feet at low water and perhaps up to 26 feet at high water. The tidal range in the approaches is 4 to 6 feet. The distance from Hongkong to Canton by water is about 90 miles.

The railway terminals are not connected, though plans have been suggested for joining them by means of a belt line. There are three terminals—those of the Canton-Kowloon Railway, on the south side of the city; the Yueh-Han Railway, on the north side; and the Canton-Samshui Railway, across the river.

The warehousing is chiefly taken care of in private Chinese godown buildings. Heretofore foreign firms have maintained their chief places of business at Hongkong, but there is a tendency to transfer them to Canton in order to secure the advantage of direct contact with the Chinese consumers and producers.

The direct foreign trade for 1918, as indicated by the Maritime Customs report, was: Imports, 28,215,544 taels; exports, 50,436,445 taels; total, 78,651,999 taels.

The Canton Delta and West River ports are tributary to Canton and Hongkong.

KONGMOON.

Kongmoon, the terminus of the Sunning Railway, which taps a rich district, has an estimated population of 55,000. There is a suitable wharf built by the railway company. The direct foreign trade for 1918 was: Imports, 3,403,377 taels; exports, 1,135,598 taels; total, 4,538,975 taels.

LAPPA.

Lappa, across the bay from Macao, is little more than a Chinese Maritime Customs station for that city and the surrounding country. The direct foreign trade for 1918 was: Imports, 8,336,631 taels; exports, 4,821,052 taels; total, 13,157,683 taels.

MACAO.

Macao, which is Portuguese territory, is a small but beautiful city. The shallowness of the harbor limits traffic to small coasting steamers, steam launches, and junks.

SAMSHUI.

Samshui is the western terminus of the Canton-Samshui Railway, and also the converging point of the steamship lines running from Hongkong and Canton to Wuchow, farther up the West River. Samshui is not an important town in itself. The direct foreign trade for 1918 was: Imports, 2,348,113 taels; exports, 420,672 taels; total, 2,768,785 taels.

WUCHOW.

Wuchow is located at the head of steamer navigation on the West River. It is an important transfer point for trade in the upper West River basin and to Kweilin on the Kwei River, which joins the West River at Wuchow. It has an estimated population of about 50,000. Above Wuchow trade is carried in junks and a large fleet of Chinese crude-oil motor boats. The shipping facilities are in the form of housed pontoon or floating wharves owned by the respective transportation companies. The direct foreign trade for 1918 was: Imports, 9,090,908 taels; exports, 5,732,524 taels; total, 14,823,432 taels.

NANNING.

Nanning is located on the West River about 335 miles above Wuchow, and is the chief trade center of western Kwangsi Province and for up-river and overland traffic with Yunnan. The trade is carried chiefly by river in junks or motor launches. The population is estimated at 50,000 to 60,000. The shipping facilities are of the same type used at Wuchow, being made necessary in both cases by the extreme rise and fall of the river. The direct foreign trade of the port for 1918 was: Imports, 762,069 taels; exports, 2,070,786 taels; total, 2,832,855 taels.

LUNGCHOW.

Lungchow, near the French Indo-China border, is not an important trade center. It was established as a customs gateway for traffic between China and Tongking. Except at low water, it is reached by motor boats from Nanning. The direct foreign trade for 1918 was: Imports, 91,680 taels; exports, 7,921 taels; total, 99,601 taels.

PORTS WEST OF HONGKONG: KWANGCHOW.

The first port west of Hongkong is the free port of Kwangchow, French leased territory, of about the same area as Hongkong. It has a good but undeveloped harbor. The administrative town of Fort Bayard is the chief foreign settlement. Chekam, within the territory, about 10 miles from Fort Bayard, is the Chinese center and chief commercial city. There are no shipping facilities other than small landing places for junks. The value of the place is potential and can only be realized by making it a terminus of a railway system serving the interior of southwestern China. Since it is a free port, customs reports are not available. An official estimate of the foreign trade for 1917 is: Imports $3,907.879 (silver dollars); exports, $5,050,272; total, $8,958,151.

HOIHOW.

Hoihow is the port for Hainan Island. It is situated on the Strait of Hainan, the route of steamers plying between Hongkong and Gulf of Tongking ports. The harbor is not a good one, being so shallow that steamers have to anchor in the strait 3 miles or more from the city, goods being handled by lighters or local junks to and from the steamer anchorage. It would be practicable, however, to improve the harbor so as to make a satisfactory port of call for coasting steamers. Kiungchow, about 6 miles inland, is the chief city of the island, having an estimated population of about 50,000. Most of the business is conducted at Hoihow, which has an estimated population of 30,000. The direct foreign trade for 1918 was: Imports, 2,303,062 taels; exports, 2,188,888 taels: total, 4,491,950 taels.

PAKHOI.

Pakhoi, situated on the Gulf of Tongking, when first opened to foreign trade, served as an outlet for Nanning and Western Kwangsi. The opening of the West River to foreign trade diverted most of the business down the river to Canton and Hongkong, so that Pakhoi has not prospered in recent years. It still has a potential value that may materialize if it should be made the terminus of a railway system connecting it with the interior. The estimated population is about 25,000. It is the seaport for Limchow, about 12 miles inland, with a population of about 60,000. There are no shipping facilities, goods being lightered to and from the beach. The direct foreign trade of the port for 1918 was: Imports, 1,397,254 taels; exports, 1,431,805 taels; total, 2,829,059 taels.

HAIPHONG.

Haiphong, the chief port of Tongking, French Indo-China, also serves as a port for Yunnan Province by virtue of the Haiphong-Yunnan Railway. The city is located on a branch or slough in the Red River Delta. In the anchorage there is from 40 to 60 feet of water, and vessels drawing 30 feet of water can berth at the very good wharf and warehouse terminals erected by the chamber of comerce. The warehouses have railway connections. There are mud and sand bars in the approaches which limit the available depth at low water to about 19 feet. Work in progress will increase this to 24 feet. The large French mail steamers are able to call at the port by taking advantage of favorable tidal stages. The population is about 18,000, of whom about 1,000 are Europeans. The foreign trade of the port for 1916, as shown in the customs returns, was: Imports, 111,547,000 francs; exports, 120,944,000 francs; total, 232,491,000 francs.

PORTS NORTH OF HONGKONG: SWATOW.

There are two ports north of Hongkong open to foreign trade—namely, Swatow and Amoy.

Swatow, the port nearest Hongkong, is situated on a bay in the Han River Delta, which is protected from the sea by intervening rock and rugged islands. The rich alluvial plain extends inland about 25 miles to Chaochowfu, the administrative center of the district. A railway constructed by a private Chinese company connects the two cities. Swatow is the chief trading port between Hongkong and Shanghai. Its population is estimated at 50,000 to 60,000. There are a number of good pontoon landings and godown systems owned by the various transportation companies. Considerable local shipping is carried on by means of steam launches and junks. The approaches are deep enough to permit the use of the port by moderate-sized coasting steamers, drawing as much as 25 feet. The direct foreign trade of the port for 1918 was: Imports, 13,364,353 taels; exports, 8,950,774 taels; total, 22,315,127 taels. The country tributary to the port is limited by the coastal range of mountains.

AMOY.

Amoy is situated facing the Formosa Channel, about opposite the center of the island of Formosa (Taiwan). The setting of Amoy is picturesque, the coast being mountainous and dotted with islands. Amoy city is located on an island about 40 miles in circumference. The foreign settlement embraces a small island separated from Amoy by a narrow channel. About 35 miles inland from Amoy is Changchowfu. A Chinese company undertook to connect the two cities with a railway. The line is in operation for about two-thirds of the distance to Changchow. Before the occupation of Formosa by the Japanese, Amoy was a famous tea port, but most of the tea is now exported from the Formosan port of Keelong, which the Japanese have improved with modern shipping facilities.

Amoy has a splendid harbor, but the hinterland is restricted by the coastal mountain range. There are no wharves, but the shore is lined with numerous godowns, cargo being transferred by lighter. The outer anchorage can accommodate a large fleet of deep-draft vessels. The population of Amoy is estimated to be about 300,000. The direct foreign trade of the port for 1918 was: Imports, 7,365,919 taels; exports, 1,926,472 taels; total, 9,292,391 taels.

SUMMARY OF TRADE ROUTES.

The American is primarily interested in the fact that the chief points of contact with China are Shanghai and Hongkong, and in a measure Kobe, Japan, and Manila, P. I. Through Shanghai his goods reach Central China chiefly by the Yangtze River, while they go to the coastal points by local steamers and native junks. His goods reach North China points chifly in coasting vessels by way of Shanghai and in part by Kobe, but to some extent by direct steamer service. Normally part of the Manchurian trade passes through Vladivostok. Through Hongkong, and in part Manila, American goods reach China coast points south and west of Foochow and the Canton and West River districts. Primarily through Hongkong, but by reshipment via Haiphong, they reach Yunnanfu.

The largest trade territory is that reached through Shanghai, where are located the chief China offices of most of the American firms.

The Japanese have built up a system of steam transport lines from Kobe to Chinese ports that has made their chief port an important center of Chinese trade activities. Manila is a factor in Chinese and South China Sea trade, and, by a proper development of its facilities and shipping lines, it might be made a very important distributing center for the Far East for American trade generally.

TRANS-PACIFIC SHIPPING LINES.

The abnormal shipping conditions during the war disrupted the trans-Pacific steamship services, but the regular American and European lines are reentering this service and a number of new lines are being added to the list, as the trans-Pacific trade demands have grown to such proportions as to require much additional tonnage.

The following steamship companies are operating on the runs from the American Pacific coast to the Far East, calling at Yokohama, Kobe, Shanghai, Hongkong, or Manila, or all five ports:

Out of San Francisco.—Pacific Mail Steamship Co., American; Struthers & Dixon, American; Pacific Steamship Co., American; China Mail Steamship Co., American; Toyo Kisen Kaisha, Japanese; Robert Dollar Co., British and American. In addition to the regular lines, there are a number of chartered or tramp steamers in service, chiefly Japanese vessels.

Out of Puget Sound, Seattle, Tacoma, Vancouver.—Admiral Line, American; Struthers & Dixon, American; Nippon Yusen Kaisha, Japanese; Osaka Shosen Kaisha, Japanese; Canadian Pacific Ocean Services (Ltd.), British; Robert Dollar Co., British and American; Alfred Holt & Co. (Blue Funnel Line), British; Frank Waterhouse & Co., American, Japanese, and British ships; Garland Steamship Corporation, British and American. In addition to the regular lines, there are a number of chartered or tramp steamers in service, chiefly Japanese vessels.

Out of Portland.—Admiral Line; Struthers & Dixon; Frank Waterhouse.

The Nippon Yusen Kaisha operates a New York-Far Eastern service via Panama.

TRANS-PACIFIC FREIGHT RATES.

The table on the next page shows the rates of freight from Shanghai to America [1] via the Pacific. effective April 17, 1919. The minimum charge per bill of lading is $10 United States currency. Shippers pay the local freight from outports to Shanghai. The cost of transshipping outport cargo at Shanghai is paid by the ocean steamer, but storage is charged to shippers if it exceeds 0.25 tael per ton.

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[1] For a statement of commodity rates from United States Pacific coast ports to the Far East, effective Nov. 5, 1919, the reader is referred to p. 467.

Commodities.	Rates in United States currency.	
	Per 2,000 pounds.	Per 40 cubic feet.
Antimony	$15	
Beans and peas	18	
Bean cake and seed cake	18	
Books		$15
Bristles		30
Camphor		20
Canned goods		15
Carpets, Tientsin		30
Chinaware, earthenware, and porcelain		20
Cotton, raw, waste, and linters [a]	15	15
Curios		20
Cylinders, returned empty (carried on deck at shipper's risk)		10
Eggs [b]		20
Egg products:		
In cases		15
In barrels		20
Feathers		15
Hair		30
Hats		20
Hemp, jute, ramie, and China grass		15
Hides (in pressed bales)		15
Household goods and personal effects [b] [c]:		
Up to $10 per 100 pounds in value		15
Over $10 per 100 pounds in value		30
Intestines and sausage		20
Iron, pig	10	
Licorice root		15
Oil		15
Ores:		
Up to $900 per 2,000 pounds in value [d]	15	
Over $900 per 2,000 pounds in value [d]	25	
Peanuts:		
In shells	20	
Shelled	20	
Pongee silk and silk goods [d]		[e] 25
Rhubarb root		15
Seeds	20	
Silk, raw and wild ... per 100 pounds	(7½)	
Silk waste and pierced cocoons		20
Skins and skin rugs:		
In bales		15
In cases		20
Straw braid and chip braid		15
Tallow:		
In bales		20
In cases		15
Tea		15
Tin	15	
Tobacco:		
In bales		15
In hogsheads		20
Turmeric	18	
Valuable cargo, including all commodities not otherwise specified over $900 per 40 cubic feet or 2,000 pounds in value [a] [d]	[e] 25	[e] 25
Walnuts:		
In shells	30	
Shelled		15
Wool (in pressed bales) [a]	15	15
Cargo not otherwise specified [a]	15	15
Cargo not otherwise specified, carried on deck at shipper's risk [a]	10	10

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[a] When both weight and measurement rates are given for one item, the rate giving the larger amount of freight will apply. All weight rates are on gross weights.

[b] On perishable articles, household goods, and personal effects freight must be prepaid.

[c] For household goods and personal effects, shippers must indorse their bills of lading "I (or we) hereby declare that the actual value of the property herein described does not exceed $10 gold per 100 pounds." Item 22 will be charged on bills of lading not indorsed.

[d] In the case of ad valorem rates the market value declared on the consular invoice will be used.

[e] Plus 1 per cent ad valorem.

TONNAGE DUES, PILOTAGE CHARGES, AND HARBOR REGULATIONS FOR THE PORT OF SHANGHAI.

SHIPPING DUES.

Craft of foreign build pay tonnage dues to the Government as follows: Under 150 tons register, 1 mace ($\frac{1}{10}$ tael[1]) per ton register; over 150 tons register, 4 mace per ton register. These dues are paid every four calendar months at the port where the vessel is at the time they become due, and after payment the vessel may make use of any port in China for a period of four months.

WHANGPOO CONSERVANCY TAX.

At Shanghai there is a conservancy tax of 3 per cent of customs duty on the vessel's cargo.

MOORING CHARGES.

As to mooring expenses, no charges are made if the vessel moors in the stream with its own anchors, but vessels other than those belonging to the shipping companies having their own head-and-stern moorings are charged (by the owners) for the use of such moorings, on the following scale:

Upper head-and-stern moorings.—For the first three days or part thereof, 35 Shanghai taels[2]; for every subsequent day or part thereof, 7.50 Shanghai taels.

Lower head-and-stern moorings.—For the first three days or part thereof, 50 Shanghai taels; for every subsequent day or part thereof, 10 Shanghai taels.

WHARFAGE CHARGES.

Wharfage charges are as follows (all wharves are private property):

		Taels.
Vessels carrying mixed Chinese and/or Japanese cargo	per foot	0.30
Vessels under 300 feet carrying only coal		65.00
Vessels over 300 feet carrying only coal	per foot	.35
Oversea steamers with home cargoes	do	.65
Lorchas (native sailing craft)		50.00

Vessels from foreign ports remaining at the wharf for more than five days will incur an extra charge of 50 Shanghai taels for the first day and 75 taels for each succeeding day or part thereof.

Coasting vessels remaining at the wharf for more than three days will incur an extra charge of 30 Shanghai taels for the first day and 50 taels for each succeeding day or part thereof.

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[1] See second paragraph of footnote on p. 124.

[2] In 1919 the Shanghai tael is worth about $1.20 United States currency.

PILOTAGE SERVICE AND FEES.

Pilotage is not compulsory.

The duties of the harbor pilots, where such exist, are to take charge of vessels at the outer limit of the anchorage; berth them in accordance with the orders received from the harbor master's department; take charge of vessels shifting berths, going in or out of dock, or to and from a wharf, or out of the anchorage; and to assist in and report to the harbor master's office all matters concerning the shipping in port and the conservancy of the river or harbor.

In berthing vessels the harbor master will, so far as possible, meet the wishes of commanding officers and consignees; and the entrance, working, or clearance of vessels taking berths not assigned to them shall be stopped by the Customs until the harbor master's orders are complied with.

Vessels are to moor in accordance with orders received from the harbor master, and are not to remove from the anchorage without his permission.

The harbor pilotage fees, payable to the harbor master, are:

	Fees.		Tonnage charges.
	Sailing vessels.	Steamers.	
	Taels per foot.	*Taels per foot.*	*Cents per ton.*
Gutzlaff to or from Shanghai	10.50	8.25	1
Tungsha Lightship to or from Shanghai	9.75	8.25	1
Woosung to or from Shanghai	3.75	3.75	[illegible]
Gutzlaff to or from Woosung	7.50	6.00	1
Tungsha Lightship to or from Woosung	6.75	6.00	1

NOTE.—1 tael=1⅓ ounces of silver=$1.30 United States currency. Several years ago the value of the tael was only $0.65 United States currency.

The detention fee is provided for in rules 30 and 57 below. The withdrawal fee is provided for in rule 31 below.

The charge for shifting vessels in port, including mooring and unmooring, going to or from a wharf, buoy, or dock, is 1.875 taels per foot plus 0.375 tael per foot per mile—parts of a mile to count as a mile.

The minimum charge is for 10 feet draft. In calculating pilotage charges parts of half feet count as half feet.

In the case of men-of-war the tonnage charge is leviable on the displacement—3 tons of displacement to count as 1 ton for tariff purposes.

The above tariff is to remain in force until six months after peace is declared—during which period no further increase is to be made—when it will be subject to revision by the general pilotage authority.

Following are five important rules concerning fees and charges:

Rule 30.—Vessels not leaving within the time stated in the application shall pay a detention fee of 18 taels for each subsequent tide. (See rule 57.)

Rule 31.—An application for a pilot may be withdrawn, but if withdrawn after a pilot has been appointed for a vessel leaving that day, or after 4.30 p. m. for a vessel leaving the following day, a withdrawal fee of 18 taels will be charged.

Rule 57.—(*a*) If a pilot is ordered to attend at Woosung to meet a vessel coming down the Yangtze bound either for sea or Shanghai, his time shall count from the hour he is ordered to be at Woosung, whether or not the ship has arrived; and for each tide during the period of his detention, subsequent to that on which such ship was to have arrived, the pilot shall charge 18 taels.

(*b*) The above shall apply to a pilot in charge of a vessel detained in the river awaiting a berth. (See rule 30.)

Rule 58.—The master of a vessel may refuse to pay inward pilotage until a certificate is produced from the harbor master or his deputies that the vessel has been properly moored.

Rule 59.—When a vessel is berthed as soon after her arrival as tide and daylight permit, no shifting fee shall be charged.

But in the event of a pilot being kept on board owing to no berth having been appointed, he is entitled to a shifting fee.

HARBOR REGULATIONS.

Following is the text of the harbor regulations for the port of Shanghai, promulgated May 10, 1913:

1. The term "vessel" in these regulations refers to vessels of foreign type. Regulations concerning native-type craft are embodied herein only so far as is necessary for their due control when working in connection with foreign-type vessels. They are regulated in other respects by special notifications.

WOOSUNG ANCHORAGES.

2. The anchorages at Woosung for vessels of foreign type are:

(*a*) For vessels other than those provided for in (*b*): from Woosung Lighthouse to Woosung Creek, or outside Woosung Bar.

(*b*) For vessels proceeding to Shanghai which are not lightening; for vessels with explosives as cargo on board; and for vessels under quarantine restrictions: outside Woosung Bar.

3. A vessel anchored outside Woosung Bar shall clear of the fairway leading to the entrance of the river, and in this respect must conform to the directions of the berthing officer.

4. A vessel requiring to anchorage in anchorage (*a*) shall, on arriving at Woosung Spit Buoy, hoist the International Code flag *N* at the fore, when she will be boarded by the berthing officer, who will direct her to a proper berth.

5. Vessels in anchorage (*a*) shall moor in accordance with the instructions received from the berthing officer.

SHANGHAI ANCHORAGES.

6. The anchorage for foreign-type vessels are:

(*a*) For vessels other than these provided for in (*b*), (*c*), (*d*), and (*e*): from the south side of the Kiangnan Arsenal Dock to the Standard Oil Co.'s wharf.

(*b*) For vessels carrying explosives: outside Woosung, as provided for in clause 20.

(*c*) For vessels carrying mineral oil, turpentine, spirits of wine, arrack, etc.: below the 8th section, on the Pootung side, as provided for in clause 28.

(*d*) For vessels carrying benzine, naphtha, and other high inflammables: below the Cosmopolitan Dock, as provided for in clause 29.

(*e*) For quarantine purpose: outside Woosung, as provided for in clause 33.

7. Vessels entering the harbor will be boarded by a berthing officer, who will direct them to proper berths.

8. River, coast, and mail steamers which have determined berths are allowed to proceed to them without stoppage, except as provided in clauses 20, 28, 29, and 33 of these regulations.

9. Four berths in the Upper Reach will be kept for the use of men-of-war.

10. Vessels shall moor in accordance with instructions received from the harbor master, and shall not shift their berths without a special permit, except when outward bound after having obtained their clearance papers.

11. Applications for berths or for permission to shift must be made at the harbor master's office by the shipmaster, the first officer, or the pilot in charge, when the necessary instructions concerning the berth will be given.

NAVIGATION RULES.

12. Vessels are required to conform to the International Regulations for Preventing Collisions at Sea.

13. Vessels shall not attempt to cross the Woosung Bar or pass through the Astræa Channel when the depth signal indicates less water than a vessel is drawing, except as provided for in the following: It is sometimes the case that a greater depth of water can be obtained by following a track which can not be indicated by the marks. Captains and pilots wishing for further information than that shown by the depth signals should apply at the harbor office at Shanghai or Woosung, when the draft, in excess of the signaled depth, that is permissible by following a stated track will be notified.

14. Between Woosung Creek and Kajow Creek no steamer shall overtake and pass another steamer, except a tug or a tug towing.

15. No steamer or other large vessel shall, except for the purpose of avoiding an accident, anchor between Woosung Creek and the Standard Oil Co.'s wharf.

16. Vessels when passing conservancy works in course of construction or conservancy craft engaged in dredging, etc., shall proceed at a slow speed.

17. Vessels under way to the lower end of the Standard Oil Co.'s wharf shall proceed at no greater speed than is necessary to keep the vessel under control.

18. When vessels are shifting from wharves to head-and-stern mooring buoys, or vice versa, and when swinging at wharves, a black ball, 4 feet in diameter, must be hoisted at the flagstaff on the wharf from which the vessel is shifting, or at which swinging, and no vessel shall commence to shift or to swing until such black ball has been hoisted for 10 minutes. The vessel while so shifting or swinging shall exhibit a black ball, 2 feet in diameter, at the fore truck.

19. Towboats and other craft towing within the harbor limits must be of sufficient power to maintain perfect control over their tows. Not more than two lighters or other craft shall be towed abreast.

MUNITIONS.

20. Vessels having on board as cargo any high explosive or the specially prepared constituents of such, any loaded shells, or more than 100 pounds of gunpowder, any quantity of small-arm safety cartridges in excess of 50,000 rounds, or any other fixed ammunition of which the aggregate quantity of powder charges exceeds 100 pounds shall anchor outside Woosung and fly a red flag at the fore, and, in regard to the discharge of same, they shall abide by the instructions received from the Customs. Vessels having to receive on board any such explosives shall observe similar precautions.

This rule shall not apply to small-arm safety cartridges when carried in a properly constructed mazagine, so fitted as to admit of its being flooded by a sea-cock operated from the upper deck, in which case the number of such cartridges allowed to be carried is not limited.

21. Men-of-war and other Government vessels may, on application to the harbor master, be permitted to take on board or transship explosives within the harbor limits, provided that such explosives are handled only by their own crews under command of an officer.

22. Any transfer by boat of explosives, arms, or ammunition must be covered by a special permit, which will be issued at the harbor master's office upon the owner's written application, giving the registered numbers of the boats to be thus employed.

23. Vessels wishing to proceed to the Kiangnan Arsenal to discharge explosive cargo will be permitted to do so, but they must not come above the limit specified in clause 20 of these regulations without first obtaining permission of the customs authorities. After taking explosive cargo on board at the Kiangnan Arsenal, vessels will not be allowed to anchor between the arsenal and Woosung.

24. No lighters or other boats, except those which have permanent decks or coverings, shall be allowed to receive any of the articles mentioned in clause 20 of these regulations, and all such articles when received on board any such lighter or boat must be stowed under deck or within the permanently closed-in space.

25. Every craft, of whatever description, conveying explosives through any part of the waters of the port shall exhibit a red flag, not less than 6 feet by 4 feet, at the foremast head or where it can best be seen; and in the case of all

boats or lighters thus employed which are not fitted with masts the flag must be exhibited at a height of not less than 12 feet above the highest part of the deck or house.

26. No lighter or other boat having explosives on board shall be allowed to anchor or make fast anywhere between Kiangnan Arsenal and Black Point, and no lighter or boat shall pass between these limits except in the daytime, and then only on a fair tide unless propelled by steam or towed by a tug.

27. The storage of explosives of any sort shall not be allowed anywhere on or near either shore of the Whangpoo or its affluents in the neighborhood of Shanghai except with the permission of the Customs authorities.

MINERAL OIL, ETC.

28. Vessels arriving with mineral oil, turpentine, spirits of wine, or arrack as cargo shall be berthed on the Pootung side of the river below the eighth section of the harbor or alongside a Tungkadu wharf or the Nanmatou Wharf, south of the Tungkadu Dock, and there must remain until all such cargo has been discharged. Vessels loading such cargo shall do so only where it is permitted to be discharged, and from there proceed to sea.

Vessels at any wharf are permitted to handle a quantity of kerosene not exceeding 50 cases.

Bulk-oil steamers are required to take all such precautions as are customary in their trade.

29. Vessels arriving with naphtha, benzine, ether, or other high inflammables as cargo shall not proceed above the lower side of the Cosmopolitan Dock.

But, on special application to the harbor master, vessels having on board only 300 or less drums of 65 or less imperial gallons of benzine will be allowed to proceed to the eleventh section and land such cargo on the Pootung shore, below the Yangking Creek, under the conditions stated in clause 30.

Vessels loading such cargo shall do so only where the same is permitted to be discharged, and from there proceed to sea.

30. The storage of naphtha, benzine, ether, or other high inflammables, in quantities exceeding 450 drums of 65 imperial gallons, is permitted only in the lower section, on the Pootung shore, below the Cosmopolitan Dock.

But, on special application to the harbor master, permission may be granted to store benzine in the eleventh section, on the Pootung shore, below the Yangking Creek, subject to the following conditions:

(*a*) That the quantity does not at any time exceed 450 drums of 65 imperial gallons.

(*b*) That such drums of benzine be stored in a godown approved by the harbor authorities.

31. No fires, for cooking or any other purpose, and no smoking shall be allowed on board any lighter or other boat when going alongside a vessel which has explosives, naphtha, benzine, etc., on board, nor while there are any such explosives, naphtha, benzine, etc., on board such lighter or boat.

32. Vessels having on board as cargo calcium carbide, chlorate of calcium, chlorate of potash, phosphorus, oil of mirbane, acid nitrate, sulphuric acid, sulphur nitrium, sodium peroxide, hydrochloric acid, and other such preparations which are required by the insurance companies to be carried on deck, shall be berthed on the Pootung side of the river, where such cargoes shall be stored only in special godowns. Vessels loading such cargo shall do so only where it is permitted to be discharged, and from there proceed to sea.

INFECTIOUS DISEASES.

33. Vessels arriving from an infected port, or having any infectious disease on board or any disease suspected to be infectious, and vessels on board which a death has occurred during the voyage from her last port, shall, as provided by the quarantine regulations for the port, on approaching Woosung, hoist the quarantine flag (International Code Flag *Q*) at the fore, anchor outside Woosung Spit Buoy, and keep the flag flying until pratique has been granted.

No person shall be permitted to leave or board such vessel without a permit from the harbor master or the port health officer.

CONSERVANCY.

34. No wharves, jetties, pontoons, or bundings shall be established, and no reclaiming or other riparian work commenced, without the permission of the

Whangpoo Conservancy Board: such permission is to be applied for through the harbor master.

35. No buoy shall be laid down without the sanction of the harbor master and his approval of its moorings. Unoccupied buoys must be lighted from sunset to sunrise.

36. All buoys shall be subject to the control of the harbor master, and when they are so placed as to obstruct the passage of vessels or are not moored in such a way as to economize berthing space, the harbor master shall be at liberty to order them to be shifted. In case of refusal or neglect on the part of the owners of a buoy to shift its position as directed by the harbor master, the latter may cause it to be removed at the cost of the owners.

37. Ballast, ashes, garbage, refuse, spoil obtained by dredging or otherwise, etc., must not be thrown into the river. Vessels wishing to discharge ashes or other refuse should hoist the International Code Flag *Y* at the fore truck, when a licensed ash boat will attend and take delivery at a fixed tariff.

38. In the case of wrecks within the harbor, or in the approaches to the port, which form a danger to navigation, if no active steps for removal have been taken within a reasonable time—as specified by the harbor master—the wreck will be removed or destroyed by the marine department of the Customs at the owner's expense.

MISCELLANEOUS.

39. All arc lights and other powerful lights on wharves, pontoons, banks of the river, and on board vessels shall be so screened or shaded riverwards as to avoid embarrassment to navigators. Searchlights shall not be used in such manner as to embarrass navigation.

40. The blowing of steam whistles or sirens, except for the purpose of signaling in accordance with the regulations for preventing collisions at sea or for the purpose of warning vessels of danger, is strictly prohibited.

41. No vessels shall fire guns, cannon, or small arms within the harbor.

42. No vessels except men-of-war may use swinging booms. Swinging booms will be rigged in from sunset to sunrise.

43. All vessels shall keep on board a sufficient number of hands to clear and pay out chain. The hawse must always be kept clear.

44. Vessels discharging timber overboard, when swung out of line with the direction of the ebb and flood currents, shall have no rafts or logs trailing astern. When the vessel is in direct line with the ebb and flood currents, rafts or logs may trail astern for a distance of only 100 feet from the vessel. Rafts or logs must not be accumulated in such a manner as to obstruct the fairway.

45. Lighters and other boats are not to be made fast to vessels in such a manner or in such numbers as to interfere with the free passage of other boats or vessels through the harbor.

46. In case of fire occurring on board a vessel in port, the fire bell must be rung immediately by that vessel, and by those above and below her, and the signal *NH*, International Code ("Fire; want immediate assistance"), hoisted by the burning vessel if possible, and by those above and below her, during the day, or the light lowered and hoisted continually during the night. Notice should immediately be given to the river police hulk and to the nearest municipal police station.

47. Vessels infringing these regulations will have their entrance, working, and clearance stopped by the Customs until such infringement is remedied, or will be dealt with by their national authority.

NOTICE.

1. Vessels allotted special numbers under the port signal code are requested to fly the same when entering the harbor.

2. Masters of vessels are requested to furnish the harbor master's office or the coast inspector's office with any information they may possess relative to new dangers, such as rocks, shoals, etc., they may have discovered.

3. If the master of a vessel has any complaint to prefer against a pilot, he should forward the same in writing to the harbor master.

4. At the harbor master's office may be seen all local harbor notifications and notices to mariners. These, as well as all notices pertaining generally to the China Sea, are also exhibited in the public room at the coast inspector's office.

5. Vessels are recommended not to sail or steam through the shipping with the tide, it being highly dangerous to do so, especially during spring tides.

6. The following are the call flags (port signals, China) which are used at Shanghai:

N: Berthing officer wanted.
L: Customs officer wanted.
G: Doctor wanted.
Y N: Police wanted.
Y: Ash boat wanted.
N H: Fire or leak; assistance wanted.
B: Explosives on board as cargo.
F: Mails for the Chinese post office.
U: Shanghai Tug & Lighter Co.'s towboat wanted.
X: Kochien Transportation & Towboat Co.'s towboat wanted.
R: Shanghai Waterworks Co.'s water boat wanted.
I: French Waterworks Co.'s water boat wanted.
Q: Quarantine.

CURRENCY, EXCHANGE, AND BANKING.[1]

By G. Passeri, late Financial Adviser to the Bank of China.

The subject to be treated in this chapter presents in China a very intricate aspect to the uninitiated, but, as it constitutes one of the most important coefficients of success for anybody interested in the country, it is a matter that requires the closest attention on the part of all business men. It is for them that this chapter is written, with a view to better understanding and an improvement in the commercial relations between China and the United States. The writer will therefore endeavor to reduce everything to the easiest and most comprehensible formulas, so that it can be understood by all.

CURRENCY.

STANDARDS.

The currency in China is chaotic; it forms the most complicated mixture of heterogeneous mediums of exchange, from a weight to a coin, that has ever existed in any one country.

Under the circumstances, it will be easily understood that it is a rather difficult problem to ascertain the standard when confusion exists in the currency itself. It is necessary first to define certain terms:

Cash.—A coin, generally in copper, constituting the standard for the everyday transactions of the lower class of the Chinese people, and therefore of the vast majority of them.

Tael.—A weight of silver of a given fineness representing the standard for all banking and commercial operations.

Dollar.—A coin of silver, introduced by foreigners and used by them in their everyday life.

To this list may be added the "small coins," representing the standard of commercial transactions in certain districts. But as these are also used as "token coins" throughout the country, they will be dealt with later.

CASH.

The copper coin known as the cash was introduced in China as a currency a very long time ago—about the eleventh or twelfth century before Christ, when, for the first time, the rule became established that pieces of metal should be exchanged according to their weight. No trouble was taken then to inscribe these pieces with their correct value. This practice began about 700 years later. About 150 years before Christ coinage became a Government prerogative, and the coins themselves began to have a more uniform shape and precise inscription, although, of course, the shapes were somewhat fantastic, as they have been in the earlier periods of all other countries.

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[1] This chapter was written in October, 1918.

Nevertheless, along with this mixed coinage, a round coin, a little less than 1 inch in diameter, with a round hole in the middle, began to circulate about 25 centuries ago; but soon afterwards the hole became square and the appearance of the copper coin very much the same as that of the one known to-day. These coins are generally made of copper, of unequal dimensions, because of the different periods and mints at which they were coined. They circulate widely throughout China quite independently of their exterior appearance, and they form practically the only instance that can justify a synonymous use for " currency " and " coinage " in that country.

These small, dirty-looking, battered disks of metal, a few specimens of which have been in circulation for a thousand years or more, constitute the medium of exchange for the everyday transactions of 400,000,000 people.

They express the value of labor for the workman, that of products to the artisan and the farmer, that of commodities to the shopkeeper; and the standard of life of these millions of human beings can easily be gauged by the ratio of the cash in normal times to the gold dollar. It would take about 2,000 cash to equal a single dollar, which many westerners spend or give away without a thought. The reader should become familiar with the idea of so many millions of people trying to exist, every day of their lives, on a few of these cash—the same cash that foreigners in China (with the possible exception of the missionaries) scarcely ever see and never touch, because the value is so infinitesimal that it means nothing to them.

These copper cash are generally kept together, by a string passing through the hole, in lots of 100, 500, or 1,000, to facilitate both counting and transportation. Quotations exist everywhere in China establishing the ratio between this coin and the others circulating in the country, and as, in this particular case, they represent a commodity more than anything else, one frequently finds that the quotations vary from one district to another for the same standard. This condition is due chiefly to the rules of demand and supply, and sometimes the difference is quite appreciable.

TAELS.

It will be easy to understand that such a medium of exchange as the cash—representing as it does such an infinitesimal fraction of value, having such an instability in quotations, and last, but not least, representing (in any quantity) large volume and weight—could not serve to express the value of big transactions, particularly so from the time when the means of communication, even if primitive, rendered possible the exchange of commodities with the outside world.

It is stated that the Hindus and Arabs were the first to import silver into China. It is not known how many centuries ago this was, but the fact remains that silver was the metal employed as a medium of exchange in very remote times—not in any coined form, or any particular shape, but simply taken at its weight and fineness.

China is the country of "old customs," and the practice that came to life thousands of years ago still exists at the present day. There is only one improvement. The silver coming from abroad in bars is melted down into what are generally called "shoes," in quantities each representing about 50 "taels" in value. What is called to-day the "tael" ("liang," in Chinese) is simply 1 Chinese ounce of silver.

DIFFERENT STANDARDS OF WEIGHT.

It must be remembered that China is a very large country and that many races go to make up its population. These people have been scattered over an immense area; climatic conditions and geographical conformation have been different, resulting in different products and trade; the natural aptitude of the inhabitants and the raw materials at their disposal have been different, resulting in different industries and customs; the degree of civilization and the disposition of mind have been different, resulting in different social organization and different tendencies to perform certain actions.

It must also be remembered that when silver first came to China the means of communication in this vast Empire were limited to waterways, and one can readily imagine how little could be done with primitive boats in a country embracing something like 4,500,000 square miles. The different races, brought together under the same rule, continued to live their lives and adhere to their customs without being influenced by their compatriots thousands of miles away—with the natural consequence that in different places this silver, making its appearance as a medium of exchange at various epochs, was not dealt with according to the same standard of weight, but according to the standard of the scale of the particular town or Province. The question of fineness is left for the present out of the discussion, but it will be taken up later.

China, as stated, is preeminently the country of tradition. The results of what happened centuries ago are still in evidence to-day, with a few modifications and adjustments, brought about by the closer connection of the parts of this heterogeneous whole. One is faced, therefore, with a variety of taels, of different weight and fineness, according to the place where they are circulated.

But it is necessary to go a step further and explain that even in the same town one can easily find in use various denominations of taels of different weight and fineness. It must not be forgotten that this term "taels" does not represent coins but is simply a name given to certain weights of silver at a certain fineness.

TAEL IS ONE CHINESE OUNCE.

The tael is always 1 ounce of silver, and it represents the sixteenth part of a pound (called a "catty" by foreigners in China). The pound generally known to foreigners, and imposed by treaty for the levying of customs duty in a uniform way, is 21⅓ ounces avoirdupois. But this is not by any means the only "pound" existing, as throughout the Republic the weight of the Chinese "pound" ranges from 12 to 42½ ounces. The Canton tael (ounce) used in Shanghai as the standard weight for the "silver bars" is 579.84 grains troy. The tael, it may be repeated, is always 1 ounce of silver; it is the scales that are not the same, resulting in the differences that are apparent when the weights are converted to a foreign standard weight.

CLASSIFICATION OF TAELS.

These different taels existing in the same place are not used indiscriminately, but they can be divided into three distinct classes—the "Treasury tael," the "local tael," and the "commodity tael." The Treasury tael will be considered later. The local tael is the one weighed on the scale of the place, modified according to the town or Province from which the merchant, with whom the deal occurs, comes. The commodity tael is the one weighed on the scale modified according to the products or goods constituting the subject of the transaction.

FINENESS.

And now another complication has to be introduced. So far we have spoken about a certain scale, or a certain weight of silver, but we have still to find out what kind of silver we have been talking about. The worst that may happen is to be in a place where there are three kinds of silver—"fine silver," 1,000 fine (assayed at the stone, not chemically pure); "old silver," 995 fine; and "trade silver," 960 to 970 fine. It will not be difficult to imagine what would happen to any untrained foreigner who tried to do what almost every one of the Chinese does every day of his life—namely, work out the combinations of the score or more of taels in use in one particular town, weighed on differently modified scales, with three denominations of silver.

NOTATIONS OF TAELS.

The result could, of course, be worked out for the information of the reader, and the different notations in grains of a certain fineness of silver could be appended. One could go so far as to introduce in the calculations other elements that have not even been mentioned so far, such as meltage fees, "old customs," etc. (all of which will be considered later), but for the present the result would be not only useless but confusing, and the reader must be satisfied to know that a few hundred notations of different taels exist.

THE CHINESE AND THE TAEL.

Before going any further, it may be well to correct an impression that has doubtless been received—namely, that the Chinese must be extraordinarily clever in order to find their way unerringly within the precincts of this problem of their everyday life. In a way they certainly are, but it must not be forgotten that this state of affairs has existed for generations and that there are people—one can hardly call them bankers—who, for a consideration (disguised under the more formal term of "rate"), will substitute their shrewdness for the mental operations that any native would have to perform in paying for the commodities he needs. Force of habit, and possibly instinct, renders it as easy for such persons to guess quite accurately what has to be paid in a specified currency as it is for us to go through the routine of our everyday life.

TAEL WEIGHT AND TAEL CURRENCY.

From what has been said so far, it will not be difficult to understand that the tael is both a weight and a currency, and while it will not always be possible to make the distinction in writing, it should be made plain that "tael" will mean *tael weight* when a certain quantity of silver, or any other commodity, is said to be weighed on a certain scale; while it will mean *tael currency* when to the weight of silver is added the specification of its fineness.

To illustrate: By "Tientsin tael" is generally meant 1 "Hanping tael" in weight of silver of "Hwapao" standard, 992 fine. But if one said only "1 Hanping tael," it would mean one tael weight of silver or any other commodity, weighed on the Hanping scale, and if of silver it could be of any standard. When, however, one adds "Hwapao" and says "Hanping Hwapao tael," it can mean nothing but a tael currency.

It must be evident how difficult it would have been for the Government to levy taxes and duties according to a uniform standard throughout the country, under existing circumstances, unless some definite plan had been devised. Therefore the Government established precise notations for the so-called Treasury taels, which stand at the top of the list of the few taels with which the American business man should become familiar.

HAIKWAN TAELS.

The Haikwan tael is purely a money of account, and its purpose will be easy to understand when it is mentioned that "Haikwan" in Chinese means "Customs Office." It is, in fact, the tael that was introduced at the opening of the Inspectorate-General of Customs, and the actual weight, apart from any consideration of the fineness of silver, is not ascertainable with any degree of accuracy. According to the treaties, its weight ought to be 583.3 grains, but in practice it ranges from 581 to 589 grains.

If the fixed rate of conversion were taken as a basis (and this is practically the only element on which one can rely) it would be found that in Shanghai, for instance, since the opening of the port, the rate has been settled at 100 Haikwan taels=111.40 Shanghai taels. With regard to the question of fineness, it may be said that the Haikwan tael is, theoretically, pure—that is, 1,000 fine—and in fact the bank or banker that is attached to every customhouse in China, and is responsible for the payment to the Government of all duties levied, has to account in pure silver for all money collected. Since the Haikwan tael is a money of account and it is therefore impossible for anybody to tender it in payment of duties, it is left to the Customs bank to settle the rates in comparison to the taels currency of the particular place. And as the Customs banks are responsible to the Government for a silver 1,000 fine, it is certain that they will be careful that the rate of conversion shall fully cover their liabilities. If this rate of conversion holds good for receiving moneys it does also for paying them out; but as a matter of fact it will be found that another set of weights is used, making, actually, a difference between the two rates for receiving and paying of $\frac{1}{8}$ to $\frac{1}{2}$ of 1 per cent. This is in lieu of commission to compensate for the expert knowledge, risk, and labor in taking in silver of different degrees of fineness, and the writer has heard the Chinese defend this practice on the same principle as that of the foreign exchange banks in quoting two different rates for buying and selling.

It may be well to explain here that the Chinese will not go through any difficult operation to ascertain the fineness of silver. It is common practice for them to recognize it at a glance, and it is very seldom that they have to apply the stone or crucible test; of the chemical analysis they have no idea.

Not only are rates established for the conversion from silver into Haikwan taels, but the exchange rates for Haikwan taels in foreign currencies are settled each month by the Customs authorities and are, of course, dependent upon the foreign bank's exchange rate ruling at the time.

KUPING TAELS.

The Kuping tael, again, is only a fictitious medium of exchange established by the Government for all dues other than customs duties and those levied in kind. It is supposed to be uniform throughout the country, but that is only in theory; in practice (particularly when copper cash are tendered) the differences are very great.

The notation of this tael is normally 575.8 grains, with a fineness of 1,000 and a slight difference between receiving and paying. It is equivalent to 1.096 Shanghai taels.

Since the establishment of the Republic there has been a marked tendency to adopt the dollar as the unit for all dues other than customs duties, in order to popularize the dollar as a currency and accustom the people to its eventual introduction as "standard" for all transactions; and this attempt has been partially successful. In some of the Provinces a new tariff has been introduced taking the dollar as the unit, and dues are paid in dollars or in other currencies at a fixed rate of exchange. In other Provinces some of the dues continue to be expressed in Kuping taels and the payment of dollars is encouraged. Therefore the Kuping tael will eventually be a thing of the past, and, as will be pointed out later, this is not the only instance in which the Government has adopted the dollar in its stead.

TSAOPING TAEL.

The Tsaoping tael, as applied for the payment of duties contributed in kind, is not a currency nor a fictitious medium of exchange but simply a weight, roughly equivalent to 565.65 grains.

Incidentally, it is also used as the "weight element" of tael currencies in different places, and it will be found at Hangchow (where the silver is 997 fine), at Chefoo (976 fine), etc.

LOCAL TAELS.

Having covered the subject of the Treasury taels, one comes now to that more vast and complicated one—the local taels.

As already mentioned, it would be a futile (and, indeed, an almost impossible) task to consider in detail every notation of all the taels existing in China. It would be useless because it is not necessary for the foreigner living there or doing business with that country to be acquainted with these details, which are generally manipulated with great efficiency—and, incidentally, with a certain amount of profit—by the Chinese staff attached to every foreign enterprise.

Foreign firms in China keep their account with foreign banks in one tael currency, the recognized general standard of the place, and it will therefore only be necessary for the American business man to be acquainted with the notations of those standards.

PEKING TAELS.

The foreign banks established in Peking have adopted the Kungfa taels, 1,000 fine, as the currency of account. The Kungfa tael weight is 555.7 grains. Being a money of account adopted by the foreign banks, it can not be tendered over the counter as currency, and the Chinese comprador will accept either the "market tael" or the "metropolitan tael" at the rate ruling for the day.

TIENTSIN TAEL.

The generally recognized standard of Tientsin is the Hanping-Hwapao tael, weighed on the Hanping scale giving a tael 557.4 grains of silver of "Hwapao fineness," 992 fine.

CANTON TAEL.

If the "weight element" of the Canton tael is steadily fixed at 574.84 grains and is widely used not only in Kwangtung Province but also in various other parts of the Republic, one is here confronted with a new difficulty—the fact that the fineness of silver is not of a recognized standard. In previous years, when transactions with foreigners were concerned, silver was understood to be 1,000 fine, but since the introduction of dollars and their use instead of ingots, it has come down to 900 fine.

It has been a common practice of late years in making payments in Canton taels to tender also a certain proportion of "small coins" (10 and 20 cent pieces in silver) of a fineness that is not always constant. It will be evident, in consequence, how difficult it would be to ascertain the composite fineness of a Canton tael; and the payments, therefore, for any given transaction are a matter of arrangement between the parties concerned.

Owing to the impossibility of the foreign merchants dealing in a currency presenting such uncertain elements, the Hongkong dollar, coming from the British colony near by, has been generally adopted in their dealings with the Chinese.

HANKOW TAELS.

The tael of Hankow is the so-called "foreign rule" tael, 554.7 grains of silver, 967 fine.

SHANGHAI TAELS.

The Shanghai tael, adopted as a standard for local currency and international relations, is composed of three elements. The weight is taken from the Tsaoping tael of 565.65 grains, the silver is 944 fine, reduced from the standard of the Kuping basis, 1,000 fine, divided by 98, constituting the Shanghai convention or "old custom," the origin of which is not "lost in obscurity," as some believe, but represents a kind of premium between actual silver and a given liability, as it is assumed that 98 Shanghai taels silver will cover 100 taels liability.

Silver bars and ingots coming from abroad are weighed, instead, on the Canton scale of 579.84 grains, while the Tsaoping tael, as described above, is used by Chinese banks for their transactions with other parts of China.

Shanghai is the only place where the notation of the fineness of silver is not given in millimes, and in order to explain the peculiarity existing in this port a reference must be made to the fact mentioned elsewhere, that all silver coming to China is remelted into what is generally called a "shoe" (from its resemblance to a Chinese shoe) weighing approximately 50 taels. Assay offices established for the purpose, and generally duly recognized, will then stamp on one side of the "shoe" the exact weight in taels of the scale adopted (in the case of Shanghai the Tsaoping scale) and on the opposite side the notation of fineness represented by the difference between the actual fineness and the fixed standard established at 944. This notation, which is characteristic of Shanghai, will indicate the degree of superiority over the assumed standard for each shoe of 50 taels weight. For instance, for silver 1,000 fine, the notation per shoe of 50 taels would be 2.8, since a tael $\frac{1000}{1000}$ fine is superior to a tael $\frac{944}{1000}$ fine by $\frac{56}{1000}$, and $50 \times \frac{56}{1000} = 2.8$. If the notation were 2.6 it would mean silver 996 fine, as one has to add 52 to 944 to make 996.

If a case of these shoes, generally in lots of 60, were to be sent to another place in China, the notation would be altered, the silver being reweighed according to the local scale, and the notation of fineness expressed in the particular standard of the place.

NEWCHWANG TAEL AND "TRANSFER TAEL."

The local tael at Newchwang is 555.1 grains of silver, 992 fine, but transactions are very seldom expressed in actual silver. The peculiar practice existing on this market, to which reference will be made in the next few lines, was started at the time of the Chino-Japanese war, when the Newchwang market suddenly was emptied of every ounce of silver. The local banks and merchants, faced with such an unexpected situation, decided immediately to establish what might be called a "system of credit," based on what is generally termed today the "transfer tael"; and this system, established as an expedient years ago, still exists at present, probably because it allows of transactions without actual cash. It would be extremely difficult to explain how this system works in detail, as that could not be done without introducing elements peculiar to the Chinese, which would not be of interest for the purpose of this article. It is sufficient to say that it can be roughly compared to a "book credit" on which banks and merchants "draw" in strict adherence to certain complicated rules and regulations. Its ratio to actual silver is extremely changeable and is, of course, strictly connected with the reserve of silver existing in the banks at any given moment. In normal times, and with an adequate silver reserve, the rate on Shanghai may vary only 2 or 3 per cent between silver and transfer money, but the Newchwang market is so nervous, at all times, that the least rumor will make a tremendous difference in rates.

This system has been the direct cause of the gravest financial crises in the Newchwang market, but it has nevertheless resisted all attempts, official or otherwise, at eradication. The writer was himself sent to Newchwang in 1913 to study the situation and propose remedies for the impending crisis. The crisis was avoided, conditions were brought to a satisfactory state by a scheme of gradual improvement in rates imposed by the authorities, but all attempts to persuade the interested parties to do away with the system were absolutely fruitless. What might be called a normal state of affairs existed in the market for a few years afterwards, but the European war and the consequent scarcity of silver, over which no control can be exercised by the Chinese, caused again an appreciable drop in the difference between silver and transfer money, which stands now at about 25 per cent.

FRACTIONS OF TAELS.

It is evident that with a "shoe" weighing anything between 49 and 55 taels it is impossible to make exact payments. There are no current fractions of a tael, but it is common practice to square up differences by means of small pieces of silver, generally of an ovoid shape, weighing anything between 1 tael and 10 taels. Smaller differences are made up in "small coins" or "copper cash." With this peculiarity, however, the foreigner has nothing to do, the manipulation of the actual silver being left entirely to the Chinese staff, while the foreigner who has an account with the bank does not need to bother himself with such details. Payments from Chinese are generally received in what are called "native orders," or drafts on a Chinese bank, these native orders being deposited by the foreign merchant with his bank, which will credit the value on due date, after deducting a very small charge for saving him the trouble to which he would otherwise be subject in counting the actual cash and meeting transportation charges.

While the tael is the sixteenth part of a Chinese pound, in weighing the metal the tael is considered the heaviest unit, with decimal subdivisions down to $\frac{1}{1000000000000000}$, each with its own name. Those commonly used are the following:

1 tael =10 mace.
1 mace =10 candareens.
1 candareen =10 cash.

DOLLARS.

REASONS FOR INTRODUCTION IN CHINA.

It must be evident that no one of the currencies that have been examined so far could be used by foreigners in the transactions of their daily life. The copper "cash" was too small a unit to represent a value for even minor domestic transactions, and the inconvenience of carrying about pounds of copper did not form an inviting prospect; while of course the tael not only would have been too heavy to carry about in "shoes" of 50 taels, but also presented another difficulty in its indivisibility. Besides, a foreigner has a just objection to the use of a medium of exchange concerning whose value he can never be sure, since this is dependent on two elements (to put the situation as mildly as possible) not easily ascertainable when one is shopping or when paying bills—that is to say, the elements of weight and fineness.

CAROLUS DOLLAR.

The first foreign coin to make its appearance in China was the Spanish or Carolus dollar, issued in Spain during the reign of Charles IV and introduced in China toward the end of the eighteenth century. Its advent was very popular in a good many places, and for a certain time even Shanghai adopted it and exchange quotations with gold were given by the banks. This foreign coin, the Carolus dollar, of which it is said that only about 300,000 are left in circulation to-day, has been at times so "fashionable" as to command in certain districts a premium of as much as 80 per cent over other silver, considering, of course, all the elements of weight, fineness, etc. This is a very strange occurrence in a country where silver is generally exchanged at its intrinsic value. Even to-day, in some of the smaller treaty ports, the Carolus dollar is at a premium of about 40 per cent as compared with the Mexican dollar, notwithstanding the fact that the Carolus contains 402.5 grains of silver to the 416 of the Mexican. But if a Carolus dollar were to be offered in places other than those where it is "fashionable," a loss of about 3 per cent would have to be reckoned with.

MEXICAN DOLLAR.

The Mexican dollar was introduced in China about 70 years ago and almost entirely displaced the Carolus dollar. The Mexican dollar is the one in daily use in Shanghai in domestic and other minor transactions, and the only one accepted by the foreign banks.

HONGKONG AND STRAITS DOLLARS.

Among the dollars circulating in China, one may mention the Hongkong dollar and the Straits dollar, which are current in certain cotton-growing districts.

THE DOLLAR IN THE SOUTH.

The dollar, be it foreign or Chinese, has never circulated in South China at its inscribed value, but it has been admitted in a peculiarly Chinese manner. The Cantonese and the Fukienese, for instance, do not at all consider the value that a particular dollar has in other districts, but the first exchange shop where the dollar is taken in will hammer on it the actual intrinsic value and thereafter the dollar will circulate freely, not at its value as a coin but at its value as silver. This is the so-called "chopped" dollar, from "chop," a Chinese ideograph.

The same dollar may be worth at Shanghai from 1 to 6 per cent more than it is at Canton. The reverse is never possible, as the intrinsic value of the dollar is always less than its value as a coin.

CHINESE DOLLARS.

Of the Chinese dollars, the only one that is used by foreigners to any great extent is the Peiyang dollar, circulating widely in North China, particularly in Peking and Tientsin.

There are, besides, Chinese dollars of great variety coined by the various provincial mints, but as these are very far from having a constant weight and fineness they are very seldom used by foreigners. They were coined years ago when there was practically no restriction imposed on the output of the mints and when there was no law concerning the weight and fineness of these dollars. They were never popular nor accepted at par outside the Province of issue, because of the instability of their intrinsic value. They are now gradually being withdrawn from circulation and demonetized. The mints have turned their energies more profitably to the coining of the "small coin," while only two mints—those of Tientsin and Nanking—are nowadays authorized to mint the so-called "new dollars." These two mints turn out dollars of a uniform weight and fineness that have the following notations: Weight—0.72 tael Kuping scale, 575.8 grains, or 0.73 tael Shanghai scale. Composed as follows—0.6408 tael pure silver, Kuping scale, or 0.71284 tael Shanghai scale; 0.0792 tael alloy, Kuping scale, worth 0.001828 tael of pure silver. The charge for minting one dollar is 0.0066746 Shanghai tael. Therefore the mint par of the so-called "new dollar" is 0.7213426 Shanghai tael.

EFFORTS AT STANDARDIZATION.

These dollars are not yet freely accepted by the foreign banks, notwithstanding the efforts of the Bank of China and the modern Chinese banks, particularly in Shanghai, to make them circulate at par with the Mexican dollar. But as discussions on the matter are still going on, it is to be hoped that the foreign banks will consent to recognize the first coin of uniform value minted by the Republic and will encourage the Chinese in their attempt to introduce the coin that will eventually be the standard of the country—particularly so because the Chinese themselves (at least the central and provincial authorities) have, since the first year of the Republic, adopted this coin as the standard of the Government treasury, trying their best, whenever it was possible, to do away with the old Kuping tael for payment of dues other than customs duties. Moreover, the Chinese have completely abolished this obsolete and fictitious expression of value—the Kuping tael—from all Government books and transactions, adopting the new dollar not only for their budget but also throughout the country in all post offices, for the payment of the salaries of all Government and provincial officials, on all Government railways, for the land tax, the tobacco and wine tax, and all other taxes for which its adoption was possible, in all issues of Government bonds, and, lastly, as the book unit of the Government banks.

The more advanced Chinese banks in the treaty ports are helping in this laudable Government effort, and it is to be hoped that the people themselves will fall in with the new idea. This they would do much more quickly if the Government could find the funds necessary to the vast undertaking of standardization.

SMALL COINS AND TOKEN COINS.

What are called "small coins" in China are 10 and 20 cent pieces of silver representing theoretically the tenth and fifth part of one dollar, respectively. They are coined in large amounts at the various provincial mints, and their weight and fineness are never constant. They can not be relied upon to any great extent so far as fineness is concerned. Notwithstanding the fact that they are nothing but a subsidiary coin, they circulate as standard in various Provinces and are used for all sorts of transactions—particularly in payment for the products of the country.

As coins subsidiary to the dollar they do not circulate in decimal proportion to it, but the ratio varies according to the Province and the mint. One might get as many as six 20-cent pieces for a dollar and some coppers besides, or eleven 10-cent pieces and a few coppers. In fact, these coins circulate like any other medium of exchange in China, according to their intrinsic value and to the general rule of demand and supply. They are not inscribed as 10 or 20 cents of a dollar, but their denominations both in English and Chinese are given in decimals of a tael, indicating, of course, the weight of the scale of the particular Province where they are minted and not the fineness of any one special currency.

The 20-cent pieces bear in English the inscription "1 mace and 44 candareens," while the 10-cent pieces are inscribed "72 candareens." Their fineness ranges from 750 to 900, and this alone will give an idea of how many different rates can exist for these coins when compared with other mediums of exchange.

It is generally accepted that for any country to have token or subsidiary coins circulating according to a fixed ratio as settled by the existing government, it is necessary (1) that the government maintain the circulation of coins having an inferior metallic value, by legislation to secure their redemption on demand in the coin having the higher value as metal; (2) that regulations as to the exact quantities to be minted, after a consideration of the actual need of the country, be strictly adhered to; and (3) that the distribution throughout the country be effected judiciously by the fiscal instruments of the government in order to regulate the demand and supply.

Examining carefully the actual conditions existing in China one finds at once (and this is probably an assertion that will upset the calculations of all the would-be reformers of the currency of the country) that, not only for the existing subsidiary coins but for any other set of subsidiary coins that China might decide to mint in the future, there will not be the slightest chance of their circulating at par with the standard unless their intrinsic value is proportionately equal to it. Because in China the three conditions, just mentioned as essential, do not obtain.

The only remedy is a strong government and an efficient financial organization of the forces of the country.

In late years the copper coin, inscribed as 1 cent and theoretically worth 10 cash, has added one more element to the possibility of gambling by even the poorest Chinese.

BANK NOTES.

The subject of bank notes, if treated exhaustively, would exceed the limits imposed by the nature of this article, while many of the facts and considerations would not be of any real interest to American business men. For that reason, only the phases of the matter that are genuinely essential will be dealt with.

VARIETY OF BANK NOTES.

The enormous variety of bank notes issued in China as substitutes for the existing currencies add, to a greater extent than can be imagined, to the financial chaos. Apart from the notes issued by the foreign banks and a few of the good Chinese banks, which represent a very small proportion of the total issue, " bank notes " can be considered in China as constituting another set of currencies in themselves.

This will be apparent when it is mentioned that no restrictions were imposed by either the central or provincial authorities on the issue of notes and that therefore any bank (and there are many establishments that do not deserve this name) could put in the market an amount of notes that was not always proportionate to its silver reserve (in fact, in many instances that was the last consideration).

If one attempts to figure out the enormous quantity of mediums of exchange that go to compose the currency of China, and then realizes that many of them have their substitutes in bank notes, circulated at a discount with the coin they are supposed to represent, a very accurate idea will be obtained of the matter under consideration, and the writer will be pardoned for not going into details.

Of the bank notes issued by Chinese banks, outside the treaty ports and with the exception of those issued by banks of a certain standing, the vast majority circulate at a small discount.

PROVINCIAL BANK NOTES.

The provincial bank notes, so called because issued by the authorities of the Provinces, and made to represent dollars, small coin, or copper cash ("tiao notes"), as the case may be, constitute in themselves one of the most difficult economic problems of China. In issuing them the only consideration has been the needs of the provincial treasury.

It is very hard to estimate the amount of these provincial notes in circulation. The writer has made an exhaustive study of the subject on the spot in various Provinces, but reliable information can not always be obtained, as in many instances notes were issued without entering them anywhere and in a few cases the books were supposed to have been burned or mislaid. It is considered, however, that an estimate of $200,000,000 face value would not be greatly in error. The discount at which they circulate can be stated as between 40 and 50 per cent.

Plans were proposed by the writer for their redemption and for the absorption of the provincial banks into the Government bank, the Bank of China, but two difficulties, both insurmountable at the time, rendered the execution of the scheme impossible. The first of these was that the Government lacked the funds necessary for the redemption, even when it was considered that the amount of actual cash that was necessary would have been limited to only about 30 per cent of the total face value of the various issues. The second was an absolute stumbling block: The provincial authorities would not consent to do away with their own bank, which was to provide them with the means of paying their expenses at the end of the month. Nor had Peking the means to make them think otherwise.

The plan, however, was partially taken up later by the Government, but because of an absence of funds at its disposal, an understanding was reached whereby the Bank of China assumed the duties of subtreasurer in the different Provinces, the provincial bank ceasing to act as such on condition that the Bank of China would redeem all outstanding provincial bank notes, circulate those of its own issue, and eventually make good any deficit in the provincial budget at the end of every month.

This peculiar way of putting the plan into execution might have succeeded had the Bank of China been in a different position, but subsequent events reduced the credit of this institution, as well as its financial power, and rendered impossible the fulfillment of its obligations.

The consequence was an act characteristic of China: The provincial banks, with a few exceptions, resumed their former activity; but, as a matter of course, the Bank of China continued to act as subtreasurer in the different Provinces.

NOTES ISSUED BY GOVERNMENT BANKS.

One comes now to the bank notes issued by the Government banks, in dollars, and bearing the name of the place or Province of issue. For a few years these bank notes circulated throughout the Province of issue at par, while from one Province to another a small discount was deducted. But owing to the many revolutions, the instability of the Government, and, last but not least, the heavy demand for silver and notes made by the Government on the banks, a state of affairs was created that is far from being satisfactory.

With the silver reserve reduced to absolute insufficiency, the Government banks saw their notes heavily depreciated throughout the country, while the moratorium edict issued before his death by Yuan Shih Kai (then President of the Chinese Republic) in 1916 created such a panic as to force a good many of the agencies of the Government banks to close their doors. Only a few of the branches could withstand the run that was the obvious consequence of such an ill-advised act, the Shanghai branch of the Bank of China being practically the only one that weathered the storm without being the worse for it. Even in Peking the head offices of the Bank of China had to close down temporarily, and when they resumed their activity they limited the redemption of their bank notes to such an extent that to the present day these are at a heavy discount. The situation has since grown worse, by reason of the unsettled political situation and the increasing demands for money by the central Government. Strange to relate, while the bank notes of the Government banks are accepted at par in Shanghai, Tientsin, and a few other places, at the head office in Peking they are subject to a discount of 10 to 50 per cent. This anomalous state of affairs would not be possible in any other country, nor could one defend on any financial, political, or legal grounds the fact that one or more of the branches of a bank continue to fulfill their obligations to their creditors while the other branches, and even the head office of the same bank, do not.

RECENT LEGISLATION.

Of late years restrictions have been imposed upon the issue of notes and only the Government banks are supposed to be allowed this privilege, for which, however, they do not pay any royalty.

Some of the Chinese banks which were issuing their own notes and had to withdraw them from circulation in consequence of the Government's decision were given, free, a certain amount of Bank of China notes, which they circulate instead of their own and for the redemption of which they are responsible.

This action has somewhat improved the situation, but more stringent legislation is required.

The foreign banks, not being under Chinese jurisdiction, continue to issue their own notes without interference.

FOREIGN BANK NOTES.

The bank notes of all the foreign banks, and a few of those issued by the leading Chinese banks in treaty ports, have the full confidence of the public and circulate freely, since they constitute (particularly those issued in dollars) one of the very few mediums of exchange on which one can rely. The only other notes issued by these institutions are those in taels, circulating also at par, but for some reason—probably merely habit—these have never been very popular. Their number is very restricted, and they represent a negligible quantity when compared with the enormous volume of business done in the actual silver they are supposed to represent.

MILITARY NOTES.

The great variety of bank notes has been added to in late years as a result of the revolutions. Military notes have made their appearance. Spasmodic efforts have been made by the central Government to redeem these notes, but, as the Government's financial position has never been very strong, nothing effective has been accomplished.

JAPANESE NOTES IN MANCHURIA.

Of the bank notes issued by foreign banks, those of the Yokohama Specie Bank, circulating in Manchuria, have attained the highest degree of popularity, if one is to judge by the amount in circulation. Nevertheless, they have not displaced the currencies in existence before their introduction, being merely accepted as a new circulating medium to serve special purposes. Those notes do not represent any of the existing currencies (taels, dollars, small coins, or tiaos) but boldly introduce a new currency, the "silver yen." They are not even supposed to be issued in the Kwantung Leased Territory, or in the sphere of Japanese influence along the South Manchuria Railway line from Dairen to Changchun, but by the office of the Yokohama Specie Bank at Newchwang, where they are supposed to be repayable. Newchwang is a treaty port in China proper and outside the limits of Japanese influence. The notes themselves, as they are made to represent a coin that does not exist, can only be cashed in other currencies, and if they are presented for payment at any of the offices of the Yokohama Specie Bank in Manchuria in any great quantity, a telegraphic transfer in taels or dollars on Shanghai or other ports is generally offered, the rate of conversion being, of course settled by the bank. Years ago a few "silver yen" were actually coined and given in exchange for the notes when presented over the counter, but this practice was soon abandoned. By the issue of these notes the Yokohama Specie Bank has been put in a privileged position, because not only is it the sole bank authorized to issue them (no other bank, Chinese or foreign, has been allowed so far to issue notes of the same denomination in Manchuria, nor have they been allowed to introduce them from Newchwang), but it quotes its own rate, thereby handicapping any competition.

The Japanese have enforced the quotation in "silver yen" of all the products of Manchuria in the various exchange marts, but they have not succeeded so far in making the farmers accept the notes in payment for their produce; the latter still demand the "small coin" or "tiaos," the real currency of the "Three Eastern Provinces." In order to explain better the rôle played by the silver yen notes in Manchuria, it may be said that they represent a means of carrying money from one place to another, they can not be paid to the farmer, and it is only under compulsion that they are used as the currency of the exchange marts. What really happens is this: If a Chinese merchant in Shanghai wants to buy soya beans in Manchuria, he will transfer Shanghai taels to Dairen, which will be exchanged into "silver yen" and remitted either in notes, by draft, or by telegraphic transfer to any of the places along the railway line where beans can be bought. These silver yen will have to be exchanged into "small coins" south of Changchun, and into "tiaos" north of that city, in order to pay the farmer. But the freight on the railway and all charges connected with the shipping will have to be paid in gold yen, and of late years the Yokohama Specie Bank has also been authorized to issue notes in gold yen, repayable in gold or in bank notes of the Bank of Japan (Nippon Ginko) or of the Bank of Chosen. This, it is believed, was done in view of the fact that a gold currency was contemplated for Manchuria; it was found, however, before its adoption, that such a system would be a financial mistake.

QUESTION OF CURRENCY REFORM.

ADVISABILITY OF REFORM.

In view of the preceding account of the currency in China, the idea must have grown in the mind of the reader that it would be in the interest of China and the Chinese, so far as their internal trade and their international commercial relations are concerned, to introduce a reform and to do away with all their obsolete mediums of exchange. In a certain sense this conclusion would be justified, and it is not necessary to dilate upon the advantages of a unified currency—particularly if on a gold standard or on a gold exchange standard—so far as international trade and growing international obligations are concerned. But this would be an attempt to solve the problem while considering only the theoretical result—which has been the cause of the failure of all the plans devised by every would-be reformer. Anyone who attempts to solve the problem must face the situation as it is, and formulate a practical solution.

PERSONAL INVESTIGATIONS.

This problem, which certainly is particularly fascinating to the expert, has had the attention of the writer for a great number of years. He has traveled extensively throughout the country in search of actual facts and conditions; he has discussed the matter with every Chinese banker he met, with all the merchants whose views were obtainable, even with the man who was changing into copper "cash" a 10-cent piece, and he has come to the conclusion that the solution of the problem is not so difficult as it might at first appear. It has been seen, in fact, that the Government itself has met with a certain amount of success in trying, since the advent of the Republic, to introduce the dollar as the expression of value in all Government transactions, and this has been done notwithstanding handicaps of all sorts—worst of all, the lack of funds.

PLANS.

The writer has himself drafted a few plans for the unification of the currency, and anyone interested in the matter can read the outline of one of them in the Far Eastern Review of May, 1918, the article having been copied by some of the financial papers and reviews in the United States. But all these plans presuppose a strong Government and a reliable set of fiscal instruments, and necessitate a certain amount of funds.

The first step to be taken would be the standardization of the dollar throughout the country, and the task should not prove impossible of attainment if the Government were strong enough to enforce a law and if the Government banks had an efficient organization and a sufficient amount of funds at their disposal to give them a certain standing in financial circles and eventually absolute preponderance.

But the Government can not be strong enough nor the banks efficient in the discharge of their duties as fiscal instruments so long as they have to fight, as they have been doing since the advent of the Republic, against the worst of all odds, the absolute lack of money. The only practicable solution is through financial help from the outside world, given to the Chinese through economic channels and offered in the proper spirit, for the good that it can do.

FOREIGN POWERS AND REFORM.

Some of the foreign powers have taken a passing interest in the problem of the unification of the Chinese currency, even when things were not so unsatisfactory as they are now. In 1902 Great Britain embodied in its commercial treaty a clause to the effect that China should "take the necessary steps to provide for a uniform national currency which shall be legal tender," and the same stipulation formed part in 1903 of the American commercial treaty, while Japan the same year stipulated with China in Article VI of its commercial treaty with that country:

> China agrees to establish itself, as soon as possible, a system of uniform coinage and provide for a uniform national currency which shall be freely used as legal tender in payment of all duties and taxes and other obligations by Japanese subjects as well as by Chinese subjects in the Chinese Empire.
>
> It is understood, however, that all customs duties shall continue to be calculated and paid on the basis of the Haikwan tael.

COMMISSION ON INTERNATIONAL EXCHANGES.

In January, 1903, President Roosevelt informed Congress that he had received a request from China for aid and advice on the subject of the currency question, and subsequently a commission was appointed, consisting of Hugh H. Hanna, Charles A. Conant, and Jeremiah W. Jenks, the last-mentioned being professor of political economy in Cornell University. Prof. Jenks was delegated to go to China, and the result of his investigations was embodied in a splendid work, dealing particularly with the establishment of a currency having a fixed ratio with the currencies of other countries. The question of the internal currency of the Empire was dealt with in a pamphlet published on his return to the United States, and a perfect mastery of facts is displayed therein.

FOREIGN BANKS AND REFORM.

After the establishment of the Republic the foreign banks interested in the Reorganization Loan of 1913 made insistent demands upon the Chinese Government for a reorganization of the currency, and they intimated that no other advance would be made unless a workable scheme were introduced. A Currency Loan was also arranged with the foreign banks for £10,000,000, but nothing was done in the matter; the agreement never went beyond the preliminary stage and no money has been forthcoming. Apart from the fact that the amount would be absolutely insufficient and would probably leave things in a worse state than they are at present, China is bound by that agreement and is not supposed to borrow money elsewhere for the same purpose.

LEGISLATION.

In January, 1914, a law was promulgated setting forth in articles 2, 3, and 4 that—

> The unit of the national coin shall be called Yuan, and the Yuan shall contain 6 mace, 4 candareens, and 8 li (Kuping weight) or 23.97795048 grams of pure silver.
>
> The different kinds of national coins are as follows:
>
> A. Four kinds of silver coins—(1) 1 Yuan; (2) ½ Yuan; (3) 20-cent piece; (4) 10-cent piece.
>
> B. One kind of nickel coin—5-cent piece.
>
> C. Five kinds of copper coins—(1) 2-cent copper piece; (2) 1-cent copper piece; (3) 5-li piece; (4) 2-li piece; (5) 1-li piece.
>
> The value of the national coin shall be in decimal progression. One-tenth of a Yuan shall make a chu or a 10-cent piece. One-hundredth of a Yuan shall make a feng or cent and one-thousandth of a Yuan shall make 1 li.

The Tientsin and Nanking mints were authorized to coin the "new dollar."

EXCHANGE.

China being a country possessing a very great variety of standards of value expressed in silver and copper, circulating practically independent one of the other and having no fixed ratio established by the legislature, it naturally follows that the basis of all calculations must be the intrinsic value of the metal or metals composing the different mediums of exchange. This value must, however, be modified by those elements that can be accurately reckoned, such as assaying and meltage fees, minting charges, conventions, insurance, and transportation charges and dues, which will constitute the range within which the quotation of two different moneys can vary. This range is also subject, to a certain extent, to the general rule of demand and supply and to a factor less definite but nevertheless deserving full consideration since it is peculiar to China in the case of such foreign coins as the Carolus, British, and Straits dollars—that is, the element of fleeting popular fancy, which at times fictitiously alters values, and consequently rates, to a greater extent than any direct cause.

In the special case of the bank notes, which constitute, as already mentioned, practically a currency in themselves (except those issued by foreign and a few leading Chinese banks, which follow naturally the quotation of the coin they are made to represent), it will be found that their comparative value does not depend so much on the modifying elements indicated above as it does on the credit of the issuing banks and the silver reserve existing in their vaults.

In the present article internal exchange and foreign exchange will be treated separately and with due regard for the special interest that American business men have in a few outstanding features of this complex subject. It is obviously impossible to make a complete analysis here of all the complicated phases of the internal and external exchange situation of China.

INTERNAL EXCHANGE.

BAR SILVER.

Silver imported to Shanghai in bars is usually of an average fineness of 998, which is 17½ better than the English standard of silver, $\frac{222}{240}$; that is, $\frac{222}{240}+17\frac{1}{2}=\frac{239\frac{1}{2}}{240}=0.998$. It is sold at so many Shanghai taels currency per 100 Canton taels weight of 579.84 grains troy. The average price is taken generally as 111.20 Shanghai taels per 100 Canton taels weight. In order to express the value in a more comprehensible manner, it may be said that it would take a bar of American silver 998 fine, weighing 108.535 troy ounces, to make 100 Shanghai taels: therefore the Shanghai tael should be equal to 520.968 grains of 998 silver or 519.926 grains of silver 1,000 fine.

It must be said, however, that basing calculations for any taels on the above results would be misleading and not in accordance with facts, since one has always to reckon with a degree of uncertainty and inaccuracy that is always present in matters relating to the manipulation of silver on the part of the Chinese. It will be explained later, for instance, that if one bases his calculation on the accepted notation of the Shanghai taels he will find that the Shanghai tael is equivalent to 523.248 grains of silver 1.000 fine, while, again, even this equivalent is not generally accepted and the calculations are made from time to time according to the actual fineness and weight on the scale of any given quantity of silver forming the object of the transaction—since there is not in Chinese practice a fixed standard on the basis of which the exact value of any tael can be reckoned. But the foreign banks and foreign merchants go through their operations as if there were a fixed ratio between the various standards of taels.

It is for this reason that the comprador of a foreign bank can easily clear a good profit, because while his accounts with the bank are on a fixed ratio, his transactions with the Chinese client are on the unsettled basis. Neither of them knows the exact value of the taels they are discussing, but each will try to take advantage of the other and will get the best terms he can from his opponent. It is, in a sense, a game of "bluff." This is one of the reasons why foreign banks in China leave the handling of the cash entirely in the hands of the Chinese comprador and his staff.

It has been mentioned already that the silver, on its arrival in China, is melted into "shoes" averaging 50 taels weight; they are then taken to the assaying office, which puts on the notation for any tael currency required.

TAEL EXCHANGE QUOTATIONS.

The ratio of all the taels existing in any one town, weighed on different scales and having different fineness, and their ratio to all the other taels adopted throughout the country, expressed daily in hundreds of taels, will constitute the "taels exchange quotations."

It will be interesting to examine how these different quotations are arrived at, and in doing so the different notations that have been given already in the preceding pages will be used—the reader bearing in mind, however, that in actual practice the Chinese notations are taken as a basis and that the actual result, therefore, would not be so accurate as the one theoretically obtained.

As the currency in China circulates at its intrinsic value, it naturally follows that these quotations must be based on the value of the actual amount of fine silver contained in any one tael, modified by those elements that have been mentioned at the beginning of this discussion.

SHANGHAI-TIENTSIN RATE.

For instance, when the Shanghai rate on Tientsin is expressed at 106 it will mean that, in order to make a remittance to Tientsin through a bank for 100 Tientsin taels, it will cost 106 taels in Shanghai. The coefficients that enter into the composition of these rates are the following:

The Shanghai tael is composed of three elements—(1) the scale adopted, namely, the Tsaoping scale of 565.65 grains; (2) the fineness of silver reduced to 944 on the Kuping basis of 1,000 fine;[1] and (3) the "convention," or in other words the custom generally followed, by which it is considered that 98 taels of silver 944 fine weighed on the Tsaoping scale settle a liability of 100 Shanghai taels. These three elements will give the result that 1 Shanghai tael contains 523.248 grains of silver 1,000 fine on the Kuping basis (565.6×944×98).

The Tientsin tael is composed of two elements, the scale adopted being the Hanping scale of 557.4 grains and the Hwapao fineness being 992 on the Kuping basis. Therefore, the amount of fine silver in one Tientsin tael would be 552.94 grains (557.4×992).

Comparing now the amount of fine silver in the two taels, one finds that it would take 105.70 Shanghai taels to make 100 Tientsin taels. This is called the "specie point" and is the first basis of the following calculation.

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[1] It must be noted that the writer mentions the Kuping basis 1,000 fine and not the absolute fineness as understood by foreigners—this eventually being one of the causes of the different results obtained and the inaccuracy of Chinese calculations.

It is now necessary to examine those elements that will modify this value and that can be easily reckoned—that is to say, the charges that would have to be paid in case the actual silver ("shoes" in boxes of about 60) had to be shipped from Shanghai to Tientsin.

These charges are as follows, for each 1,000 taels if shipped by sea route:

	Taels.
Freight at 2.50 per 1,000	2.50
Wharfage and lighterage	1.10
Insurance	.50
Conservancy and other dues	.80
Cartage and boxes	.20
Seven days' interest (Chinese reckoning)	1.86
Reassaying fees (about)	.10
Total	7.06

The total, it will be seen, amounts to 0.70 per cent (7.06 per 1,000). These charges would be only 0.64 per cent if the silver were shipped by rail, since, though the freight is higher, the interest is reckoned for only three days and generally the Chinese banks do not insure by this route.

Adding now to the specie point—found above to be 105.70 taels—these charges of 0.70 tael, one gets as the result 106.40 taels, giving what is generally called the "shipping point."

By comparing this "point" with the rate of remittance (106) that has been mentioned as an instance, it becomes apparent that it is more convenient to remit through a bank than to ship the silver to Tientsin. This is because the "shipping point" has been modified by those other elements, demand and supply, which can not be easily reckoned but can be ascertained by comparison.

In the particular instance given the rate was lower than the shipping point because the demand for remittance to Tientsin was less than the supply. But this is not always true; sometimes, though not very frequently, in actual practice the reverse is the case.

It is evident from the above considerations that the range within which the quotation can vary is theoretically limited both ways by the ascertained value of the charges, dues, and fees necessary actually to carry the silver from one place to another—subject, of course, in practice to considerations of opportunity that will allow in the meantime full play to the vagaries of the general rule of demand and supply.

In other words, actual silver will be shipped from Shanghai to Tientsin when it is cheaper to do this than to remit through a bank, and vice versa, and this will, of course, act as a levelling factor of rates, as soon as the opportunity offers to bring it into play, and will naturally keep the various rates within certain limits.

The example that has been given will allow the reader, with the guidance of the notations that will be found for the different taels in the first part of this article (pp. 159 to 166), to make a study of the comparative values of the principal taels used in China.

It is general practice for the banks in China to have two rates, the selling rate and the buying rate; therefore, when the rate in the market is 106, the bank selling rate will be 106.20 and the bank buying rate 105.80.

It must be said that, in the actual circulation of this silver as a currency among the merchants and banks, there is a good deal of trust involved, since weight and fineness are seldom disputed and the notations as put down by the assaying office are generally accepted as correct by everybody, notwithstanding the fact that when the assaying office issues certificates on pieces of paper withdrawing the old ones, there would be nothing more easy than to substitute the certificates of one box for those of another of inferior weight or fineness. This is another instance of the absolute straightforwardness of the Chinese and of the implicit trust that is present in dealings of this nature.

DOLLAR QUOTATIONS.

It has already been seen that in certain districts and for certain purposes the different dollars circulate as coins at ratios not always corresponding to the intrinsic value, while in others they are simply considered as a certain weight of silver of a given fineness. In the latter case the quotations are arrived at on the same principle followed for the tael quotations.

Among the dollars circulating as coins two stand out from the rest as the most popular in their use—the Mexican dollar, circulating principally in Shanghai and adjoining districts, and the Peiyang dollar, common in Tientsin and Peking and along the Tientsin-Pukow Railway line to its southern terminus. The latter has exactly the same weight and fineness as the new dollar that circulates in Shanghai among the Chinese under the generic name of "Chinese dollar" and is quoted on the market at par with the Mexican or very nearly so, as a result of the unceasing efforts of the Bank of China and of the modern Chinese banks, which first did away with all inferior denominations of dollars and subsequently endeavored to popularize the Chinese dollars and raise their quotations as near as possible to those of the Mexican dollar.

DOLLARS TO DOLLARS.

It would seem, from what has just been said, that it should be possible to remit dollars (at least the same kind of dollars) from one place to another at par, or by paying only a nominal commission, but this is not the case, as in fact a loss is inevitable both ways. And this is how the bank, which is always ready to please its customers, would explain the matter to you:

> The operation of remitting 100 dollars from Shanghai to Tientsin is not so simple as it appears, since in fact we have to pass through three different currencies and three different exchange transactions and apply three different rates, these being the following to-day:
>
> Dollar—Shanghai tael rate=73.20 (taels per $100).
> Shanghai tael—Tientsin tael=105 (105 Shanghai taels per 100 Tientsin taels).
> Tientsin tael—dollar rate=69.80 (taels per $100 in Tientsin).
>
> Now the first rate to apply is the dollar-Shanghai tael rate, which is to-day in the market 73.20. But that of course is the market rate; our buying rate is only 73; we are satisfied with a small margin—roughly ¼ per cent. Therefore, the original 100 dollars are now 73 Shanghai taels, which we have to remit to Tientsin in Tientsin taels at a rate that is to-day 105.20 Shanghai

taels per 100 Tientsin taels. The rate that we mentioned before is of course the market rate, and it is evident that we are satisfied with a small commission—less than ⅛ per cent this time. Dividing 73 by 105.20 the result will be 69.40 Tientsin taels, which we place at the disposal of our Tientsin branch to buy the dollars that will have to be paid to the beneficiary of the draft. Our latest advice from Tientsin is 69.80 Tientsin taels per 100 dollars, but that of course is the market rate. If our Tientsin branch wants to buy it will have to pay 70 taels per 100 dollars; therefore, dividing the previous result, 69.40 Tientsin taels, by 70, it will be found that we can only give, for 100 dollars in Shanghai, 99.14 dollars in Tientsin, and we shall therefore charge 1 per cent.

The bank, it may be noted, has not charged in this instance, as happens sometimes, ½ per cent extra for remitting fees.

And of course everything that has been explained is absolutely correct, only it might be difficult for anybody to understand why the client should be bothered with Shanghai taels and Tientsin taels when all that was asked was dollars; and if the bank were questioned on the subject the answer would be that the unit of account for Shanghai is the Shanghai tael and for Tientsin the Tientsin tael and that they have to take those margins of profit to cover themselves from eventual fluctuations. But it is doubtful whether one would be quite satisfied with the explanation if he were in Tientsin the same day and the reverse operation should be put through (that is, remitting 100 dollars to Shanghai, paying them in Tientsin), since, in that case, the 100 dollars would be bought for 69.6 Tientsin taels (instead of the 70 that had to be paid), this amount would be remitted to Shanghai at the rate of 104.80 (instead of 105.20), and the result, 72.94 Shanghai taels, would fetch at the bank selling rate of Shanghai, 73.40, only $99.37—the bank in Tientsin probably rounding it off and charging 1 per cent.

And in all probability the 100 dollars tendered in Shanghai were in bank notes of the very bank to which application for the remittance had been made, and in Tientsin the beneficiary will be paid also in notes of the same bank.

DOLLARS IN TAELS.

Dollars are generally quoted, in the various places, in taels. Therefore when the rate of dollars in Shanghai is 73.5, it means that $100 is equivalent to 73.50 Shanghai taels, but, if taels are paid to get dollars (or, in other words, if dollars are bought) the bank will quote the selling rate, two points higher or 73.7, while, on the other hand, if dollars are tendered in exchange for taels the buying rate, or 73.3, will be quoted.

It has been mentioned already that the mint par of the "new dollar" is 0.7213426 Shanghai tael; therefore, in theory, that should be the rate actually ruling in the market in the absence of one fixed by legislation. But here, again, one is faced with a peculiarity of the Chinese currency—that even a coin circulating as such, and having a fixed value, is treated as a commodity and is affected by the general rule of demand and supply.

Anyone who has been stationed in a given port for any length of time and has studied the variations of these rates should be able after awhile to guess quite accurately what rates are going to be in the near future, because some of the trades of China are financed exclusively in dollars. Knowing when certain products are beginning to come on the market, a person can easily judge when the dollar rates will increase in consequence of increased demands for the coin.

To give a practical instance: Silk cocoons and cotton are bought in dollars from the producers and farmers in the interior. The silk cocoons are bought in May and cotton in September and October, and it is a mathematical certainty, unless the unexpected should happen, that the quotation for the buying of dollars in taels will go up during those months, possibly to 75 taels per $100, or, roughly, 3 per cent above the mint par. Soon after that, of course, rates will level up again, because the producer and farmer from the interior will take back his dollars to Shanghai, in order to buy those commodities that he may be in need of.

There is a great tendency among the modern Chinese banks to popularize the dollar for remittances in the interior, and to adopt it as the unit instead of the tael; and in order to do this they endeavor, whenever possible, to make these remittances at par.

SMALL COINS.

It has been mentioned already that the small coins, when taken as token coins, do not correspond to a decimal part of a dollar. In fact, it has been seen that they are inscribed in decimals of taels of the scale of the Province where they are minted. Therefore 10 cents are supposed to be 72 candareens, and 20 cents, 1 mace and 44 candareens; but these notations, which would correspond in practice to the tenth and fifth part of a dollar, respectively (a dollar being 0.72 tael on the Kuping scale), express only the relations of the weight elements, not those of value, since the fineness of the small coins is far inferior to that of the dollar. It is for this reason that the actual ratio to the dollar is always changing, as it is dependent entirely on the demand and supply. The man coming to China for the first time is astonished when, in going, for instance, to the Chinese post office to mail a letter for which he has to pay 10 cents postage, he gets back as change for the dollar that he gave to the clerk five 20-cent pieces and a few coppers. Of course, the 10 cents that he has to pay for the stamps are charged in what is generally called "big dollar," but as the change is in small coins he is handed back the equivalent of 90 cents "big dollar"—probably five 20-cent pieces and four coppers.

If, on the contrary, he had wished to pay in small coins and had tendered, as would probably have been natural in his case, a 10-cent piece, the clerk would have asked him for 3 copper cents more, and would have given him a few "cash" as change.

It is exactly the same operation, but in one case the stranger would have been glad to receive more than he expected, in the other he would have felt annoyed at having to pay more than he thought was due.

COPPER CENTS.

One comes now to the quotations of the "copper cent," which was originally coined in imitation of the Hongkong cent issued in the British Crown colony, in which place it represents the one-hundredth part of a dollar. In China copper cents are generally inscribed as "10 cash" with the exception of those minted in Canton, which bear the equivalent of "100 to a dollar," and those of every recent issue—forming part of the new scheme of standardization—which are inscribed "1 cent."

Their intrinsic value being in normal times very low (112 to 115 grains of pure copper or 95 per cent copper, according to the mint), these copper coins were always treated as token coins and their circulating value was based on the "cash." At first they circulated at their "face value" of "10 cash," or about 88 or 90 to the dollar, but in 1906 they depreciated to 112 to the dollar and they have been oscillating of late between 125 and 135 to the dollar.

CASH.

In taking up the question of "cash," one comes to a subject that, if it were to be examined fully in respect to exchange quotations and variations, would soon exhaust the patience of the reader; and therefore only a concise idea of the most important features will be given.

The copper cash, which the writer considers the fundamental coin of the whole system, representing in the expression of its infinitesimal value the standard for hundreds of millions of industrious people, is the coin into which, ultimately, all the other currencies have to be converted; and therefore copper-cash quotations are given throughout the country for all the other existing mediums of exchange. Without entering into details that would probably create confusion, it may be mentioned that in many places and on many occasions it is the comparative ratio to the cash that settles the quotations between other units of this multiform currency. In other words, one is faced here with another anomaly, of a coin that is practically a token coin, whose intrinsic value is below its circulating value and which, nevertheless, may at times influence the comparative values of other units circulating as a rule at their intrinsic value.

But in general the cash, like the small coins and the copper cent, follows in its quotations the general rule of demand and supply. At present copper cash are quoted about 1,700 for a tael or roughly 1,300 for a dollar, but they are liable to oscillate 30 per cent each way.

Nor are they quoted uniformly throughout the country, but, because of the lack of efficient fiscal instruments, their ratio to the other mediums of exchange is entirely dependent on the demand and supply in any particular place.

TIAOS.

These cash, as indicated elsewhere, are strung together, generally in rolls of 100, 10 rolls to a "string," and they are then called "tiao." But as no one does anything for nothing, the exchange shops will charge for the string and their trouble, by deducting from 1 to 4 cash from each roll of 100; and therefore, in counting cash on a string 970 will be found in one place, 980 in another, and so on, but this is a recognized custom and the string will pass anywhere for a full tiao of 1,000 cash.

In North China 1 cash counts for 2 and if for any article 40 cash are asked, 20 will be handed over. Likewise, the string or tiao is nominally of 500 cash—actually 490 or thereabouts. This is what is generally called the "two tiaos" system, and its introduction dates from the Taiping rebellion (1856–1863), when token coins worth nominally 10 cash were issued and were forced into circulation at that value. It must, however, be understood that no one loses by the arrangement, as, if one pays half, he also gets half, and what costs 50 in Shanghai costs 100 in Peking.

In Manchuria it is a recognized custom to have 160 cash to the tiao.

GENERAL CONSIDERATIONS.

Before closing the subject of the internal exchange, attention should be called to the enormous disadvantages that China experiences as a result of its monetary system. Apart from the fact that the country is on a silver standard and has to reckon with oscillations of as much as 30 or 40 per cent in a single year in its international financial relations (a disadvantage that, to a certain extent, is self-compensating), it is faced in the internal exchange with a situation that is highly detrimental to the interest of the poorer class, whose standard of living is already so low that it seems impossible for it to stand any profiteering. But after what has been said of the currency of China, it must be evident that, by a reform in the monetary system, hundreds of millions of Chinese would benefit to the extent of 10 to 20 per cent, which goes at present to the manipulators of exchange.

Aside from the profit in exchange that the foreign bank makes in transferring from gold to silver in the case of import or from silver to gold in the case of export from China, and excluding also the ordinary commercial profits of the importing or exporting firm and all commissions to middlemen, the money paid in the United States for tea (for example) imported from China is subject to an additional deduction of from 10 to 20 per cent before it reaches the tea farmer, because that money in China has to pass through many hands and many different expressions of value. And likewise the same "poorest of all poor men," after leaving so much in the hands of his own countrymen manipulating the currencies to their advantage, has to reckon with paying that much more, purely for exchange, for the cotton goods or other commodities that are shipped to China from foreign countries.

In order to get products from some places in Szechwan, for instance, the money that the foreign export firm pays in Shanghai to its comprador is exchanged six or seven times before it gets to its destination. It is generally known that things are bad, but as foreigners in China are in the habit of not bothering with such matters, few persons realize, until they are told, how deplorable they actually are.

Some of the most enterprising among the modern Chinese banks established during the course of the last few years have done and are doing their best to remedy this evil, and it is to be hoped that they will find full support where this support can be given. It must be evident to the reader that trade in general is heavily handicapped not only by the double exchange factor, internal and international, but also by the margin that everyone handling foreign products on their way to China or Chinese products on their way abroad has to allow to cover himself from eventual fluctuations. It is really to be wondered how trade can endure such a handicap.

FOREIGN EXCHANGE.

Very little has been written on the subject of the foreign exchange relations of China with other countries, and practically nothing on the actual transactions that are the consequence thereof. This condition is possibly caused by the fact that the inside knowledge of those transactions is not widely disseminated even among foreigners and that very few possess the necessary qualifications to speak on a matter that constitutes, without doubt, the most difficult problem of banking in the Far East. The attainment of the necessary skill in performing operations of this character is absolutely dependent on actual practice, even for those who have performed similar operations at home.

In dealing with this subject, therefore, the writer will not attempt to go into technicalities, but will be satisfied if he can help American business men to form a rudimentary idea of the complicated mechanism.

EXCHANGE QUOTATIONS.

In order to lay the proper foundations, it is necessary to define first of all what is actually meant by "exchange quotations." Many business men who have just begun trade relations with China have doubtless wondered at times what their agent in China meant by informing them that he could not put through a certain deal on account of the exchange; and they have been unable to understand the difficulty, since it involves a factor that probably never crossed their path before—at least not in the case of those whose trade relations have been only with countries possessing a gold standard.

"Exchange quotation" means the expression of the ratio between any one currency in China and any one currency abroad. That is easy enough to understand, but it must be remembered that this ratio has to express the comparative value of two different metals, silver in China and gold abroad, and not only that but also, as in the ordinary case of the internal exchange, has to express those elements that can be easily reckoned (charges, dues, interest, etc.) and those that can only be ascertained by comparison (demand and supply.)

BASIS.

In the case of the internal exchange one finds the basis of his calculations in the intrinsic value of the different mediums of exchange, while in the case of the international exchange the only basis that can be depended upon in normal times is the so-called "London silver price" (New York?),[1] or in other words, the price in shillings and pence that one would have to pay for 1 ounce of silver in London.

LONDON PARITY OF SILVER.

Since it has been explained that a tael is only a weight of silver, to which a notation of fineness is added, it will be easily understood that, when one has the gold price for a certain weight of silver in London (troy ounce) of a known fineness ($\frac{222}{240}$), it will not be difficult, by going through a few calculations, to find how many shillings and pence it would cost (including, of course, all charges, interest, etc., which can be easily ascertained) to bring to China enough silver, 998 fine, to make up the weight and fineness of any given tael.

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[1] Since the beginning of the war New York has gradually assumed leading importance as a silver market.

The only question is to select one of the many taels; but, as a matter of fact, that has been done long ago, the unit selected being the Shanghai tael, from which, as will be seen later, all the other quotations for the other treaty ports are derived.

The silver that comes out to China in bars is weighed on the Canton scale, 579.85 grains troy, and it is sold at the average price of 111.20 Shanghai taels currency per 100 Canton taels weight (see p. 176).

CHARGES.

The charges in normal times (present conditions will be examined later) fluctuate between 0.80 and 1 per cent, made up as follows: Freight, about one-half of 1 per cent; insurance, one-sixth of 1 per cent; brokerage, one-eighth of 1 per cent; landing, etc., one-fourth of 1 per cent. For the sake of our calculations we shall take 0.90 per cent.

We have so far put down all the elements required to find how many shillings and pence will be equal to 1 Shanghai tael; the only element that is missing is the London silver price, but as this is liable to change we shall leave it out of our calculations for the present and shall be satisfied to find the "constant" which, multiplied by the London silver price, will give the price in shillings and pence of the Shanghai tael.

FORMULA FOR "CONSTANT."

Here is the formula: How many shillings and pence will be equivalent to 1 Shanghai tael (100 Shanghai taels plus charges 0.90 tael, 100.90 Shanghai taels), if 111.20 Shanghai taels are equal to 100 Canton taels weight and if we know that 1 Canton tael weight is 579.84 grains troy? The London quotation is for standard silver $\frac{222}{240}$, but the silver coming out to China is 17½ better (see p. 176) or $\frac{239\frac{1}{2}}{240}$, while 1 ounce of 480 grains troy is sold at the "London silver price;" or, briefly:

? =1 Shanghai tael.
100 Shanghai taels, plus charges =100.90.
111.20 Shanghai taels =100 Canton taels.
1 Canton tael =579.84 grains troy.
222 grains standard silver =239½ grains, 17½ better.
1 ounce of 480 grains =London silver price.
$\frac{100.90\times579.84\times239\frac{1}{2}}{111.20\times222\times480}$ =1.182, "constant."

This constant, multiplied by the London silver price, will give the equivalent in Shanghai taels. Now, supposing the London silver price to be 49½d. per ounce, multiplying this by the constant 1.182 we get 58.50d.; but as it is customary in China to express the rate in shillings and pence, we would have to say 4s. 10½d.—in short, 4/10½. This is what is generally called the "parity" of silver, not yet modified by the elements of demand and supply.

The London silver price is telegraphed daily to the various foreign banks in China, but it is an accepted custom for the Hongkong & Shanghai Banking Corporation to give out its rates at 9.30 o'clock in the morning, after receipt of the London telegram, to the Exchange Brokers' Association, which publishes them immediately on a slip that is sent around to all other banks, merchants, etc., in the city.

EXCHANGE BULLETIN.

There is given below a specimen of one of these slips, which will be analyzed in detail:

RATES OF EXCHANGE.

Shanghai, Saturday, 19th October, 1918.

1.	Bar silver, spot	49½=4/10½
2.	Bar silver, forward	No market.
3.	Mex. dollars	73. 825
4.	Native interest	16

H. & S. B. C. opening quotations 9.30 a. m.

5.	Banks' selling rates:	
6.	London	T/T, 5/1
7.	London	Demand, 5/1¼
8.	London	4 m/s, 5/1½
9.	India	T/T, 338¾
10.	France	T/T, 666
11.	America	T/T, 121
12.	Hongkong	T/T, 68
13.	Japan	T/T, 44⅞
14.	Batavia	T/T, 277
15.	Straits	T/T, 46
16.	Banks' buying rates:	
17.	London	4 m/s credits, 5/3¼
18.	London	4 m/s docts, 5/3¾
19.	London	6 m/s credits, 5/4
20.	London	6 m/s docts
21.	France	4 m/s, 697
22.	America	4 m/s L/c, 124¾
23.	America	docts, 125½

EXCHANGE BROKERS' ASSOCIATION, SHANGHAI.

For the sake of convenience there have been placed on the left-hand side progressive numbers, so that the respective items can be referred to in the course of these explanations, but these numbers do not appear on the original bulletin.[1]

1. Bar silver spot: 49½=4/10½.—As these calculations were made in the preceding pages, we know exactly that this is the so-called "parity of silver," and it means that (with charges as in normal times of 0.90 per cent) silver being 49½d. per troy ounce in London, the price in Shanghai per Shanghai tael would be 4s. 10½d.

2. Bar silver forward: No market.—This is self-explanatory; while in normal times a special quotation is given for "forward" silver—delivery in two months' time—at present no such quotation is given.

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[1] The following calculations and formulas are based on the rates ruling at the time the article was written in October, 1918. Exchange quotations and cross rates have been greatly changed since then, but it would be useless to revise the data, as rates change daily. The reader can easily make his own calculations and derive the correct formulas by applying exchange quotations and cross rates ruling at any particular time.

3. Mex. dollars: 73.825.—This has nothing to do with the foreign exchange quotations, but is the market rate of Mexican dollars into Shanghai taels—73.825 Shanghai taels per $100 Mex.

4. Native interest: 16.—This also has nothing to do with foreign exchange, but means that the native banks pay interest at the rate of 0.16 tael per 1,000 taels per day (5.84 per cent per annum). This rate is a sure indication of the state of the money market.

5. Banks' selling rates.—This means the rates at which the bank will sell gold.

6. London T/T 5/1.—This means that for 1 Shanghai tael the bank will sell 5s. 1d. by telegraph payable in London the same day. This quotation is taken from the above parity (1), and in normal times it should be at little variance with the same, the small difference then present being due to demand and supply, but, as the war has created everywhere abnormal conditions, China has not escaped its consequences.

First of all, in working the parity, we have not taken into consideration the interest for the time that it would take for the silver to go to China, and if we reckon it on the basis generally adopted of ½ per cent per month we shall have to add to the parity ⅛d.

Furthermore, at present silver can not be shipped from London, the only place from which it can still be obtained (in limited quantities) being the New York market, where the price of silver has been fixed at $101½ gold per troy ounce.[1]

Therefore, while the banks are apparently still reckoning their parity on the basis of the London silver price, in practice this parity is worked on the basis of the New York silver price, since, as stated, New York is the only market from which silver can be eventually shipped.

It will probably not be out of place to explain how this parity is reckoned. We have the essential elements already, the only ones that we require in addition being:

I. The price of silver per 100 ounces troy: $101½ gold.
II. The cross rate between New York and London: 4.76½.[2]
III. The charges, etc., from New York to Shanghai: About 2 per cent.

And the following would be the formula, which requires no explanation.

? pence =1 tael.
111.20 Shanghai taels =100 Canton taels weight.
82.7815 Canton taels =100 troy ounces.
100 troy ounces =101½ New York silver price, plus 2 (charges, etc.).
1 ounce troy =$1 gold.
$4.76½ gold =240d.

$$\frac{103\tfrac{1}{2}\times240\times100}{111.20\times82.7815\times4.76\tfrac{1}{2}}=56.63\text{d.}$$

But as 56.63d. is equivalent to 4s. 8⅝d., the proper notation would be 4/8⅝, this being the parity worked on the New York silver price. This parity is 1⅞d. lower than the London silver parity of 4/10½, and this is due to the fact that the latter includes charges, interest, etc., from New York to London, which are heavier than from New York to Shanghai.

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[1] This statement was true at the time the article was written in October, 1918. Since then silver has been "unpegged" and the price in terms of gold has greatly increased.

[2] In October, 1918.

It might be interesting to derive from the above result the parity in gold dollars per 100 Shanghai taels, and the following formula would then apply:

? gold dollars =1 Shanghai tael.
1 Shanghai tael =4s. 8⅝d. (56.63d.).
240d. =$4.76½.

$$\frac{56.63\times 4.76\tfrac{1}{2}}{240}=\$1.1243\text{ gold.}$$

Accordingly, 100 Shanghai taels should be worth, according to the parity, $112.43 gold plus interest.

But as the subject of the gold dollar is naturally very interesting to American business men, there will be given below another formula, based on elements with which we are already fully acquainted, and giving the same result as the one just obtained, but without passing through London.

? gold dollars =100 Shanghai taels.
111.20 Shanghai taels =100 Canton taels weight.
82.7815 Canton taels =100 ounces troy.
100 ounces troy =$101½ gold plus 2 per cent charges.

$$\frac{103\tfrac{1}{2}}{1.1120\times .827815}=\$112.43\text{ gold.}$$

We have seen that the actual parity in Shanghai taels for silver coming out from the United States is 4s. 8⅝d., to which we shall add ⅛d. for interest, bringing it to 4s. 8¾d., while the price quoted in Shanghai per tael was 5s. 1d. on October 19, 1918, or 4¼d. above the parity, corresponding to about 7 per cent. Incidentally, it may be mentioned that from September 17, 1918, to the end of the month, with the parity of silver at 4s. 8¾ d., official rates were quoted at 5s. 6d., and 5s. 7d. was freely done during that period. Now 5s. 7d. is 10¼d. above parity, or something between 16 and 17 per cent.

This was an abnormal state of affairs, created by various circumstances that the writer prefers not to mention.

In normal times rates follow very closely the parity of silver; demand and supply modify them only to the extent of about 2d. (5 per cent) either way; but even then the market is not so healthy as it should be, since the factor of speculation in exchange is always present and causes movements in the rates that have no relation to the actual needs of the trade.

An ideal condition would be to have rates based on the actual silver parity—not influenced by the speculative elements that disturb the international relations of China.

7. *London demand 5s. 1¼d.*—The ¼d. difference between the "T/T" (telegraphic transfer) rate and the demand rate is due to the fact that, because of the difficulty of communication existing at the present time, it takes longer to cash a demand draft at home than it did in pre-war times when the difference was only ⅛d., representing the interest for one month's time.

8. *London four months 5s. 1½d.*—The preceding remarks apply here, only for the longer period of four months.

9. *India T/T 338¾.*—The rates on India, France, America, Japan, and Batavia are all based on the London T/T rate of 5/1 and the respective cross rates between India and London, between France and London, between New York and London, etc.—cross rates that are

telegraphed to Shanghai from London upon any important change or changes, which in normal times occur very seldom.

This particular quotation for India of 338¾ means that with the T/T rate on London at 5/1 the equivalent of 100 Shanghai taels would be 338¾ rupees with a cross rate[1] of 18d. per rupee. Here is the formula:

? rupees = 1 tael.
1 tael = 61d.
18d. = 1 rupee.
$\frac{61}{18}$ = 3.38¾ rupees.

10. France T/T 666.—As has already been said in regard to item 9, this quotation is obtained by applying the Paris-London cross rate of 26.20 francs equivalent to £1. Here is the formula:

? francs = 1 tael.
1 tael = 5s. 1d. = 61d.
240d. = 26.20 francs.
$\frac{61 \times 26.20}{240}$ = 6.66 francs.

11. America T/T 121.—This is also obtained, as above, by applying the New York-London cross rate of $4.76½ gold equivalent to £1:

? gold dollars = 1 tael.
1 tael = 5s. 1d. = 61d.
240d. = $4.76½ gold.
$\frac{61 \times 4.76\frac{1}{2}}{240}$ = $1.21 gold.

12. Hongkong T/T 68.—This rate has nothing to do with the gold exchange quotation: it simply indicates that 100 Hongkong dollars are equivalent to 68 Shanghai taels.

13. Japan T/T 44⅞.—This is obtained by applying the cross rate Japan-London of 2/3⅜.

? taels = 1 yen.
1 yen = 2s. 3⅜ = 27⅜d.
61d. = 1 tael.
$\frac{27\frac{3}{8}}{61}$ = .44⅞.

14. Batavia T/T 277.—This is obtained by applying the cross rate of 10.90 florins equivalent to £1:

? florins = 1 tael.
1 tael = 61d.
240d. = 10.90 florins.
$\frac{61 \times 10.90}{240}$ = 2.77 florins.

15. Straits T/T 46.—Like the Hongkong T/T rates, this has nothing to do with the gold exchange quotation; it means that 100 Singapore dollars are equivalent to 46 Shanghai taels.

16. Banks' buying rate.—This means the rate at which the banks will buy gold.

17. London four months' credits 5/3½.—It will be noticed that the banks' buying rate for four months' credit is 2½d. higher than the selling T/T rate, or, in other words, the banks will buy bills of exchange drawn on London on a confirmed letter of credit, bills payable four months after acceptance, at roughly 4 per cent more than they themselves would sell an equivalent amount payable in London on the same day. This 4 per cent comprises first of all the difference between their buying and selling rates, which, in normal times, is only ¼d., and, furthermore, the discount that should be based on the London rate of discount that is telegraphed to China when any important change occurs, or, in other words, the interest reckoned for the time elapsing between the moment that the banks pay the silver in China and the moment when payment in gold is received in London. This period, which, in normal times, was reckoned at about four months and a half, as bills could be sent via Siberia in about 14 days, is now a very uncertain element and therefore the banks have to cover themselves by taking a larger margin. Besides the difference between buying and selling and the discount, the bank has to reckon all charges and the eventual stamp duty.

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[1] All the cross rates have changed since this article was written and are changing daily. The reader may obtain the correct formulas at any time by applying the rates of the day.

18. London four months' documents 5/3¾.—This rate is ¼d. higher than the rate for four months' credits, as "documentary bills" are not drawn under letter of credit and, as the words indicate, shipping documents, insurance policy, consular invoice (if needed), etc., are attached to the bill; the ¼d. extra is added not only because the bills are generally not drawn on banks and are therefore not easy to discount but also to pay for the trouble of handling the documents.

19. London six months' credits 5/4.—This rate is ½d. higher than the four months' credits rate on account of the fact that payment is due two months later, the difference constituting the extra discount of 5 per cent for that period.

21. France four months 697.—The same remark applies here as in the case of items 17 and 18.

22. America four months' L/c, 124¾.—The same remark as in the case of item 17 applies here, but the margin taken is only 3 per cent on account of the easier communication with the United States.

23. America four months' documents 125½.—The difference of $0.75 gold is explained as in paragraph 18.

It has been mentioned already that these rates are the opening rates of the Hongkong & Shanghai Banking Corporation, but it does not follow that these are the rates at which another bank will sell or buy, those being dependent on that bank's own position and on many other factors making any one of the banks operating on the market a good buyer or a good seller, as the case may be. Nor are these the rates that the Hongkong & Shanghai Banking Corporation itself will quote for the whole day, since demand for "T/T's" or supply of bills may be so preponderant as to force the bank to alter its rates, and, in that case, the brokers are notified and carry the news around to the interested parties.

EXCHANGE BROKERS.

All the foreign-exchange brokers in Shanghai belong to an association, which is recognized by the foreign banks and whose membership is limited to a certain number. Special qualifications are naturally essential for one to become a member, and, in addition, the members of this association ballot for any candidate in the ordinary way. It is customary for the foreign banks to be notified in advance of any proposed candidature.

Brokerage on exchange contracts is paid only by the seller at the rate of ⅛ per cent.

RATES IN OTHER PORTS.

In order to impart a full knowledge of the mechanism of exchange as it works not only in Shanghai but in all other treaty ports where the foreign banks have their branches, it will be necessary to explain how the Shanghai rates are converted into Tientsin, Hankow, Peking, and other rates.

At 9.30 in the morning, as soon as the opening rates are issued, the various foreign banks telegraph to their respective branches the opening T/T rate on London—in the case just examined, 5/1.

From this rate (let us take, for the sake of simplicity, only one of the branches) the Tientsin branch will work out its own rate into Tientsin taels, applying the Tientsin-Shanghai cross rate, which, for example, we shall take at 106 (and therefore, for selling, 2 points lower or 105.80).

The formula that would be applied is as follows:

? pence =1 Tientsin tael.
100 Tientsin taels=105.80 Shanghai taels.
1 Shanghai tael =5s. 1d.=61d.

$$\frac{105.80 \times 61}{100} = 64.53\text{d. or 5s. } 4\tfrac{1}{2}\text{d.}$$

Therefore, the London T/T rate in Tientsin would have been on the same day 5/4½, and the branch manager can derive from this rate all the other quotations for gold exchange, as shown already in the case of Shanghai.

EXCHANGE BANKS AND THEIR OPERATIONS.

We have now completed the description of the mechanism, and, though not absolutely required by the scope of this article, the writer will endeavor to give a rudimentary idea of how exchange banks do their work. It must, however, be understood that the explanation is simply given as an illustration, since, if the mechanism is fairly complicated, the working of it is much more so.

The ideal exchange operation for a bank is to buy at one rate and sell at another immediately or before the closing of the working day, leaving a margin of profit. As an instance, the easiest operation would be to sell T/T on London at 5/1 and buy back at 5/1¼ or, to be still more explicit, to buy T/T on New York at 121½ and sell at 121. It will be understood that, though this is within the range of possibilities, it very seldom becomes a reality, and the exchange manager has to find other means to cover his transactions.

EXCHANGE POSITIONS.

It is customary for him to keep what are called "exchange positions," recorded in statements with all details of rates and deliveries. This exchange position means simply that the bank is either overbought or oversold to a certain extent, or, in other words, that a certain amount of its exchange transactions are not covered.

It is in the taking of this exchange position, and in effecting the eventual cover at the best opportunity, that the exchange manager shows his ability. That ability and actual experience are necessary qualifications in a successful exchange manager will be evident if one realizes the difficulties in his way.

It must not be thought that the taking of these positions means gambling, because an exchange manager who knows his business is not gambling when he applies his knowledge and his intelligent perception, acquired by years of practice, to the carrying out of his operations.

Nor is it necessary for him to take only one position; he can take them both ways, or, in other words, he can be overbought and oversold at the same time and still not consider that he has to put one against the other.

FORWARD CONTRACTS.

Exchange contracts for buying or selling are made not only for ready delivery but also for forward. If one wishes to buy T/T on London from a bank, say in June, contracts can be settled for delivery in December, but, of course, the rate obtained for December will be lower, the difference being entirely dependent on the tendency and the monetary conditions of the market. If the rate in June was 4s. 8d. with a strong tendency, 4d. 7¼d. for December could be secured, or if a quotation for every month was desired the contract would have read "4s. 8d. June and ⅛d. down per month to December." If the market had been weak, on the other hand, nothing better than 4s. 5d. December or 4s. 8d. June and ½d. down per month to December could have been done.

Likewise, for the sale of four months' credit or documents for forward delivery, the example applies, only vice versa, as, with a strong tendency, the ruling market rate of the day for June and ½d. up per month to December would have been quoted. With a weak tendency, the ruling market rate up to December, or probably even better, might have been obtained. And this, of course, applies not only to London but also to all the other foreign markets with which China is dealing, even to those whose quotations do not appear in the Exchange Bulletin.

DELIVERIES.

From the above it will be evident that the exchange manager not only has to cover his operations so far as rates are concerned but also must take into consideration the deliveries; if he knows his business, he must be able to conduct his transactions while employing as little as possible of the capital of the bank. It would not do, for instance, for him to buy a big amount for a certain month, without having the corresponding delivery for sales down for the same month, as, in that case, he would have to take a large amount of silver out of the vaults of the bank, to pay for the gold that he would have deposited in foreign countries, at the moment when probably the bank needed silver in China for other purposes and had no use for gold abroad.

Likewise, it would not do for him to crowd up his sales in any one month, without having the corresponding purchases for the same month, and amass in consequence a big quantity of silver in China at a moment when the bank had no means to employ it and dispose of the funds abroad—probably when the bank had to meet other large obligations there.

This will give an idea of how many coefficients an exchange manager has to take care of. Not only must he attend to the covering of his operations, as far as rates are concerned, but also (and this is more important) he must have full cognizance of the present financial position and future needs of his bank. This is much more essential in Shanghai than elsewhere, since the head office of every bank is located in that city, where all the exchange positions of all the other branches throughout China will converge. Generally those branches, to which special instructions are given every day, telegraph every night their position, which the exchange manager in Shanghai will take up and include in his own the next morning.

COVERS.

One could give numerous examples of how an operation can be covered, but that can best be left to the imagination of the reader, as it must be evident that this market presents far too many possibilities for any example to be of practical use.

It must be mentioned, however, that one of the ways of covering exchange operations is to buy or sell silver in New York or London. For instance, if a four months' bill was bought at the rate put down in the specimen bulletin on page 186, G$124¾,[1] and silver could be obtained from New York at the parity of G$112.43 c. i. f. Shanghai, evidently a good margin would be made. And there would be no need to ship the silver to China, as it could be sold later in New York if the rates in Shanghai should go below parity, as happens occasionally in normal times, consequently making it possible for the bank to sell T/T at, say, G$110.[2] By selling the silver that was previously bought in cover of another operation—and that, not having been shipped to China, would have cost even less than G$112.43 (G$110.26, to be accurate), since there were no charges to bring it out—the second operation could be covered, and, as the buying and selling of silver in New York would annul itself, a four months' bill would have been bought, as a final result, at G$124¾, corresponding to a T/T rate of at least G$121, and the real cover would have been the sale of the T/T at G$110.

It is not always necessary for banks to cover their transactions in the same currency; they can buy, for instance, on New York and sell on Paris, in which case, of course, the New York-Paris cross rate comes into play. This is generally called the triangular operation.

GENERAL REMARKS.

One can not close the subject of foreign exchange without expressing the wish—for the sake of the Chinese themselves, of all foreigners who have made China their abode, and of the ever-increasing number of those having trade relations with that country—that means will be devised to do away with all the disturbing elements affecting the exchange quotations, thereby securing rates following, as closely as possible, the parity of the metal on which they are based, leaving as the only element of uncertainty demand and supply, until such time as conditions in China permit a reform of its currency system and the subsequent establishment of a gold basis.

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[1] $124.75 gold payable four months' sight against letter of credit for every 100 Shanghai taels paid by the bank in Shanghai.

[2] $110 gold payable by the Shanghai bank through its correspondent in New York for every 100 Shanghai taels received in Shanghai.

BANKING.

Banking is a form of activity that is widespread in China—necessarily so in view of the multiform aspects of the monetary system. The scope of a bank in that country ranges from the vast business of the Government banks to the restricted dealings of the so-called exchange shops. Many are the millions of natives who are directly connected with the manipulation of the mediums of exchange.

The two Government banks, the Bank of China and the Bank of Communications, are both limited-liability companies that have been granted special prerogatives by the Government, permitting them to act as its fiscal instruments.

BANK OF CHINA.

The Bank of China is the one that acts as treasurer of the central and provincial governments and is also charged with the collecting of the salt revenue and other minor taxes. This bank was authorized to act as Government bank by presidential mandate on April 15, 1913, the authorized capital being $60,000,000, the paid-up capital $12,279,800, and the reserve funds $3,197,486.28. It has a great number of branches throughout the country, and takes a very limited part in the financing of trade and industry. The bank itself, under proper control and organization, would certainly prove a very profitable undertaking, but the internal disturbances in China, the drain on its funds on the part of the Government, and the lack of ability on the part of certain of the branch managers have always prevented its development.

The writer considers that this bank, if properly handled, would be the leading factor in bringing about the complete reorganization of the financial system of China.

BANK OF COMMUNICATIONS.

The Bank of Communications is specially authorized to act as bank for the different railways, telegraphs, and post offices, and, as its charter is not very clearly defined, it occasionally happens that some of the duties of the Bank of China are taken up by this bank in certain towns, and vice versa. The capital is 10,000,000 Kuping taels, and, like the Bank of China, the bank has a large number of branches at the principal commercial places in China. This bank also has suffered through the untoward events of recent years, and its present position, like that of the Bank of China, is not all that might be desired.

PRIVATE CHINESE BANKS.

The private banks are generally opened by merchants who wish to keep to themselves the profits accruing through the handling of the money involved in their commercial transactions. Their capital varies from 40,000 to 120,000 taels, divided as a rule into 10 or 12 shares held by two to five persons.

They are not supposed to transact banking business with the general public, but in practice they accommodate their clients with overdrafts and loans.

EXCHANGE SHOPS.

Banks of still another class, generally called cash or exchange shops, have a capital of 5,000 to 60,000 taels. The larger of these transact general banking business, while the smaller ones confine their activity chiefly to the exchange of dollars, subsidiary coins, cash, and, occasionally, the handling of taels. It is customary in the interior for these shops to issue their own paper notes, even strips of bamboo, equivalent to from 50 to 1,000 cash, and these are generally accepted in deposit by the local banks at their face value, while, of course, they can only be exchanged into currency at the bank where they were issued.

BANKERS' GUILD.

As there is no enforced legislation concerning banking in China, the organization of banking institutions in general leaves much to be desired. It is customary for them to form a so-called bankers' guild, which issues certain rules and regulations to which its members are supposed to adhere. They are, in theory, under the control of the guild, but this, being only an association with no official recognition, has no means to enforce its regulations when occasion arises.

BUSINESS OF NATIVE BANKS.

The business done by the native banks includes current accounts, fixed deposits, loans, overdrafts, and transfers of money.

The interest is generally reckoned at so much per 1,000, that on credit balances corresponding to 95 per cent of the average rate of the native interest for the month, while on loans and overdrafts 3 to 6 points are added to the average rate, according to arrangement. For example, if the average daily rate for any month were 0.18 per 1,000, which would correspond to 5.4 per 1,000 per month (or 6½ per cent per annum), these banks would charge 0.24 for a loan, corresponding to 7.2 per 1,000 per month (or nearly 8¾ per cent per annum).

As a rule, interest in China is much higher than abroad.

On fixed deposits the interest is calculated yearly at the rate contracted.

NATIVE BANK ORDERS.

There have been mentioned elsewhere the "native orders" that are generally issued by these banks; these native orders are simply a promise by the bank to pay a certain amount within a stipulated period—10 days, as a rule. They are used to a very great extent throughout China and are commonly accepted by the foreign banks under the responsibility of their compradors. (In this connection see also p. 372.)

MODERN CHINESE BANKS.

There has been a great movement during the last few years to establish new banks or reorganize old ones on foreign lines, and the success that has so far been obtained is encouraging.

The so-called modern Chinese banks include the following:[1]

Bank of Canton.
Chekiang Industrial Bank.
Bank of the Salt Industry.
National Commercial Bank.
Shanghai Commercial & Savings Bank.
Chung Foo Union Bank.
Ningpo Commercial Bank.
Chung Hua Commercial & Savings Bank.
Chin Chen Bank.

These banks have lately formed a bankers' association, which the Bank of China and the Bank of Communications have also joined.

FOREIGN BANKS.

The following are the principal foreign banks doing business in Shanghai and other ports in China:

Chartered Bank of India, Australia & China	British.
Hongkong & Shanghai Banking Corporation	British.
Mercantile Bank of India	British.
Banque de l'Indo-Chine	French.
Banque Industrielle de Chine	French and Chinese.
Banque Sino-Belge	Belgian.
International Banking Corporation	American.
Nederlandsche Handel-Maatschappij	Dutch.
Yokohama Specie Bank	Japanese.
Bank of Taiwan	Japanese.
Bank of Chosen	Japanese.
Sumitomo Bank	Japanese.
Russo-Asiatic Bank	Russian and Chinese.
Asia Banking Corporation	American.
Philippine National Bank	American.
American Oriental Banking Corporation	American.
Raven Trust Co	American.
Park-Union Bank	American.
China Trust Co	American.
American Express Co	American.
Chinghua Exchange Bank	Japanese and Chinese.
Mitsui Bank	Japanese.
Mitsubishi Bank	Japanese.

The ordinary transactions of banks in the Far East do not differ in the principal characteristics from those of banks at home, and it is only when they refer to Chinese business or to import and export business that they are peculiar to the country. Although the business of the foreign banks with the Chinese is carried out through the comprador under his own responsibility, it is necessary for the banks to safeguard themselves by creating a special bureau of information where all details concerning the actual or prospective clients of the bank are kept.

The comprador himself has always to put up a guaranty at the moment of his engagement, and his guaranty is partly in cash, in the form of a fixed deposit bearing generally 5 per cent interest, and partly in other securities.

The writer's personal experience indicates that a very small percentage of the Chinese obligations have eventually to be made good by the comprador, since transactions with Chinese can ordinarily be considered absolutely safe so long as the proper safeguards are taken.

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[1] A list of banks in China, compiled from all available sources in the Bureau of Foreign and Domestic Commerce, may be obtained from the Bureau or any of its district or cooperative offices by mentioning file No. FE-13012.

Chinese banks have dealings with foreign banks and, while those that are purely Chinese arrange their accounts with the comprador under his own responsibility, the leading Chinese banks, particularly those carrying on business on foreign lines, are treated on the same footing as foreign banks and are allowed to clear at the arranged intervals, while the daily balances are simply carried over.

As regards business with foreign merchants, it is customary for the bank to establish at the beginning of every year the maximum limit of credit to be granted to them against security and "in blanco."

It will be interesting to American business men to have the details of how facilities are accorded to export and import firms, so that a correct idea can be formed of how the transactions are carried out.

EXPORT FIRMS AND THE BANK.

If an export firm offers goods and this offer is accepted, the firm at home may or may not open credit through a bank in favor of the firm in China. If it does the firm in China will probably ask for facilities from the bank with which the credit has been opened, but if there is no credit the firm will ask for facilities from its own bank.

In either case, provided it is within the limits of the overdraft accorded to the particular firm, the bank will grant what is generally called a "packing credit," or, in other words, will allow the firm to draw on the bank to the extent of practically the full amount constituting the value of the goods to be shipped, during the process of buying.

The firm will be asked to sign a promissory note due on demand, the interest charged being from 7 to 8 per cent, while on the same promissory note the goods to be shipped will appear as security. The goods themselves may be stored in the firm's own "godown" (warehouse) or in a neutral "godown," but, in either case, they are assigned to the bank. Insurance is covered by the firm; in general the policies are deposited with the bank.

These arrangements will last for the period of time necessary for the firm to buy the goods, sort them (if necessary), pack them, and ship them away at the appointed time.

As soon as the firm has shipped the goods and has obtained a bill of lading for them, as well as insurance policies, consular invoices (if necessary), etc., it will draw the bill at 90 days, 4 months, or 6 months, as the case may be, for the full amount of the invoice, naturally including all charges. If a credit has been opened through a bank the bill will be drawn on the bank that originally opened it; if there was no credit the bill will be drawn on the firm to whose order the goods are shipped.

In either case the firm will hand over its bill to the bank in China from which the packing credit was obtained. This bill will be accompanied by all documents (hence the term "documentary bill") if no credit was opened in the first place; while if credit was opened, part of the documents may be shipped direct to the bank that opened it.

The firm may wait till the last moment to settle the exchange with the bank for the sale of the bills, or may do so in advance, or, again, may ask the bank to place the bills against any of the firm's outstanding contracts.

At the moment when the bank receives the bills with the documents attached it will transfer the amount from gold into silver at the rate settled, and will credit the firm in taels against the packing credit originally granted.

From the above it will be seen, therefore, that banks are in the habit of granting excellent facilities to their customers, the only competition possible for banks to secure the business being in the interest to be charged on the packing credit and the eventual quotation of a good rate of exchange for the purchasing of the bills.

IMPORT FIRMS AND THE BANK.

As regards import firms, facilities practically as good as those just mentioned are ordinarily granted. It is common practice for the import firms selling merchandise to the Chinese dealers to quote gold prices, to avoid all risks in the oscillations of the rate of exchange.

In ordering the goods abroad the import firm may or may not open a credit in favor of the manufacturers or exporters, but there is no practical difference in the handling of the transaction at the Chinese end.

In either case the bill and the documents for the goods shipped from home will be sent to China to a bank—the bank that opens the credit or the bank designated by the import firm.

On the arrival of the draft and documents, the bank will advise the import firm, which, in its turn, will inform the Chinese dealer.

In normal times documents will reach China much in advance of the goods themselves. As soon as the goods arrive the firm will ask the bank to let it have the shipping documents, and this is generally done; the firm will attend to clearing the goods through the Customs, paying the duties and the storage in a public godown, from which is obtained a landing account to the order of the bank (sent directly by the godown company to the bank itself).

To the Chinese dealer is left the option of settling the exchange involved in the transaction whenever he wishes, within the limit of time elapsing between the placing of the order and the paying for the goods. The foreign firm, in its turn, will settle the rates with the bank.

As goods are generally ordered in large quantities it is customary to allow the Chinese dealers to take delivery of them in partial lots, paying in each case the proportionate equivalent in taels to the bank for account of import firms. For example, let us suppose that 100 bales of piece goods are originally ordered, arrive in China, and are cleared through the Customs, and the Chinese dealer wants only to take delivery of 10 bales. He will obtain a native order from one of the native banks with which he is doing business (generally due 10 days after) for an amount in taels corresponding to the tenth part of the invoice price transferred from gold to silver at the rate settled plus all charges and interest.

The native order will be handed by the Chinese dealer to the import firm, which will issue a delivery order for the goods and will send to the bank both the native order, to be credited to its import account on due date, and the delivery order, to be signed. The bank, after having ascertained that the native order is satisfactory, will sign the delivery order on the godown company, while the godown company will make the necessary entries on the landing account. It may happen that, as the original bill from home was drawn on the firm at 90 days', 4 months', or 6 months' sight, at the expiration of these periods the goods are not all delivered, in which case it is customary to allow a renewal.

As soon as all the goods have been delivered a certain amount in taels corresponding to the approximate total amount of the original bill, plus all charges and interest, will stand at the credit of the import firm. The bank will then retire the bill and make out the statement at the rate settled, plus interest, charges, and commission.

This amount will be debited to the import account of the firm. The difference between the two amounts will constitute the profit of the foreign firm on the deal, which the bank will credit to the ordinary current account of the firm.

It must be admitted that this arrangement is an ideal one for the import merchant.

GENERAL BUSINESS.

Loans and overdrafts are granted in China on all approved securities, and, as the different banks place their own meaning on the qualification, it would be very hard to generalize.

However, loans and overdrafts are granted quite freely to the clients of the bank on known shares and other securities quoted on the Shanghai Stock Exchange. The margin that the bank will take in this case varies from 30 to 50 per cent, according to the character of the securities offered.

Loans and overdrafts are also granted on export goods, in own godown or neutral godown, on which packing credit has not been obtained; also, on import goods that have gone to China without a bill, or those whose bills have been already paid for. In this case the margin ranges from 10 to 60 per cent, reckoned on the market price of the goods on the day on which the loan or overdraft has been granted, and it depends on the perishability of the goods themselves.

In both cases—for loans or overdrafts granted on shares or similar security, or on goods in general—the margin has to be kept up by the firm. The bank reserves, therefore, the right to demand a repayment of part of the loan or overdraft, or additional security, whenever the market price of the security itself has depreciated and has reduced the percentage of margin.

It must, however, be understood that a certain elasticity is allowed and that the bank will not annoy a good customer every day in the week for the keeping up of the value of the margins on securities.

Current accounts are kept with the foreign banks in taels and dollars and with a few of them in gold currency. The majority of the banks do not pay interest on dollar accounts, but some of them do, while on tael accounts from 2 to 2½ per cent is paid on the daily balances.

Fixed deposits are accepted in taels and dollars and occasionally in gold currency, and, while the question of interest is a matter of arrangement, in general the following are the rates: Three months, from 3 to 3½ per cent; 6 months, 4 per cent; 12 months, 5 per cent.

With regard to exchange transactions, all the necessary details have been given in another part of this article, and there is nothing, therefore, to add on this subject.

The banks generally undertake the collection of bills drawn either on other ports in China or abroad, and the commission charged varies from ¼ to 1 per cent.

Clean bills drawn on firms in China from abroad are collected, the commission ranging from ¼ to ½ per cent. For documentary bills ¼ per cent extra is generally added.

Many other details could be given regarding the work of the foreign banks in China, but as they do not differ from those in similar transactions elsewhere they would have no special interest for the reader.

It may be mentioned, before closing, that the Deutsch-Asiatische Bank was seized by the Chinese Government on August 14, 1917. The writer and the manager of the Shanghai branch of the Bank of China were appointed official liquidators of the head office of the German bank in Shanghai, for the purpose of winding up its business.

CHINESE GOVERNMENT FINANCE.

By Trade Commissioner A. W. Ferrin.

INTRODUCTION.

Until the Manchu conquest (1644) Chinese Government finance was not unlike that of an individual who gets what he can and spends what he must and by some kindly dispensation manages to make both ends meet without knowing just how he has done it. At the beginning of the Manchu régime the total cash revenues of the Imperial Government were less than 20,000,000 taels (30,000,000 silver dollars), or about half the 1917 receipts of the Maritime Customs alone; but the expenditures of the central Government were correspondingly modest, and in spite of costly wars and other extraordinary drains the Imperial Treasury during the first half of the second century of Manchu rule showed a steady cash balance of 60,000,000 to 70,000,000 taels. From 1740 to 1790 revenues averaged 40,000,000 taels and regular expenditures 30,000,000. Nothing like a modern budget was known, and the system of taxation and remittance of taxes to Peking was of an intricacy to encourage all kinds of irregularities; but the Government at that time and for 60 years afterwards had little difficulty in finding either the funds normally needed or those demanded by special events.

In 1850, however, came the great Taiping rebellion, which destroyed nearly a third of the nation's population, devastated 12 of the richest Provinces, strained the resources of the Government to the breaking point, and initiated the series of calamities that resulted in the expulsion of the Manchus from the throne in 1911.

Of these calamities the worst, after the Taiping rebellion, were the war with Japan in 1894 and the Boxer rising of 1900, the first of which saddled the country with a foreign debt of £48,000,000 sterling, the latter with the Boxer indemnity of 450,000,000 taels.

The Manchu Dynasty failed under the repeated blows of adversity, but an independent China survived, and with the advent of the Republic a start was made in 1912 toward putting the Government on a business basis. The reforms contemplated by the founders of the Republic have been slow of realization, but since the second year of the Republic a regular budget has been published in silver dollars, and it is now possible to know something of the financial status of the Government and to forecast to a certain extent future receipts and expenditures.

BUDGET DRAWN UP BY MINISTRY OF FINANCE.

Following is the budget as drawn up by the Ministry of Finance for the second, third, fourth, and fifth years of the Republic; no budget was made up for the sixth year (July 1, 1917, to June 30, 1918), the budget for the previous year being continued by promulgation:

REVENUES.

Classes of revenue.	July, 1913, to June, 1914.	July, 1914, to June, 1915.	Jan., 1916, to Dec., 1916.	July, 1916, to June, 1917.
I. ORDINARY.	*Chinese dollars.*	*Chinese dollars.*	*Chinese dollars.*	*Chinese dollars.*
1. Land tax	79,180,723	76,859,060	95,972,818	90,105,784
2. Customs revenue	66,970,003	78,773,341	71,320,970	73,056,663
3. Salt revenue	77,401,265	84,879,873	84,771,365	96,767,010
4. Taxes on commodities, including likin	36,876,823	34,175,656	40,271,368	42,719,194
5. Regular and miscellaneous taxes	33,725,227	28,000,424	32,341,704	34,768,432
6. Regular and miscellaneous duties	3,173,530	4,947,281	14,067,574	5,448,686
7. Income from Government investment	7,849,579	4,063,483	2,621,261	2,083,401
8. Miscellaneous income of Provinces	12,723,427	5,133,694	6,927,694	5,101,531
9. Income of central administration	....	4,620,785	1,635,464	1,374,648
10. Income directly received by central Government	....	29,611,340	76,306,927	36,584,311
Total	317,900,577	351,064,937	426,237,145	388,009,660
II. EXTRAORDINARY.				
1. Land tax	3,322,889	2,368,749	1,480,695	5,751,464
2. Customs revenue	1,254,280	629,716	847,359	706,885
3. Taxes on commodities	6,054	10,391	18,716	21,025
4. Regular and miscellaneous duties	132,829	....	4,496,333	3,911,410
5. Income from Government investment	634,093	364,021	16,703	8,351
6. Miscellaneous income of Provinces	10,115,868	1,575,024	338,253	91,610
7. Income of central administration	[1] 230,308	1,406,077	1,359,698	2,248,438
8. Income directly received by central Government	[2] 164,269	....	17,051,808	23,510,969
9. Miscellaneous income of central Government	....	....	....	8,100,000
10. Loans	....	25,082,398	20,000,000	24,291,468
11. Advances from banks	223,370,000	....	....	16,187,305
Total	239,130,590	31,436,376	45,609,565	84,828,925
Grand total of revenue	557,031,167	382,501,313	471,846,710	472,838,585

EXPENDITURES.

Classes of expenditure, by ministries.	July, 1913, to June, 1914.	July, 1914, to June, 1915.	Jan., 1916, to Dec., 1916.	July, 1916, to June, 1917.
I. ORDINARY.	*Chinese dollars.*	*Chinese dollars.*	*Chinese dollars.*	*Chinese dollars.*
1. Foreign Affairs	3,293,115	4,229,529	3,276,677	4,446,548
2. Interior	39,618,149	42,672,290	49,653,982	42,570,100
3. Finance	210,345,180	23,383,898 29,960,079	53,531,625	61,792,970
4. War	136,864,494	134,061,795	135,813,986	156,606,047
5. Marine	7,665,881	4,802,560	17,101,779	7,304,135
6. Justice	14,671,825	7,258,459	7,665,772	9,337,156
7. Education	5,207,215	3,276,904	12,611,583	4,433,893
8. Agriculture and Commerce	5,083,386	2,276,537	3,762,244	2,734,790
9. Communications	934,877	1,935,560	1,577,408	1,533,606
10. Mongolian and Tibetan Affairs	....	1,065,344	947,230	1,044,216
Total	423,684,122	254,922,955	285,942,286	291,803,470
II. EXTRAORDINARY.				
1. Foreign Affairs	1,013,223	....	826,141	1,846,786
2. Interior	4,263,860	....	2,105,864	3,117,770
3. Finance	171,568,614	98,564,793	175,302,789	162,397,633
4. War	26,910,518	3,526,282	6,438,727	10,711,333
5. Marine	1,307,014	10,000	102,758	847,434
6. Justice	370,312	....	45,572	28,610
7. Education	1,701,635	....	225,724	594,943
8. Agriculture and Commerce	959,735	....	376,792	1,279,496
9. Communications	457,843	....	112,783	116,833
10. Mongolian and Tibetan Affairs	....	....	40,000	94,276
Total	208,552,754	102,101,075	185,577,150	181,035,114
Grand total of expenditures	632,236,876	357,024,030	471,519,436	472,838,584

[1] Contributions.

[2] Salt revenue.

The figures in the above table, which was compiled by the Ministry of Finance, are estimated, and the comparison of years is inexact, because in 1915 Yuan Shih Kai changed the fiscal year to coincide with the calendar year; but the table gives an approximation of actual receipts and expenditures, and shows the relative importance of the various taxes as income raisers.

TEN ORDINARY SOURCES OF REVENUE.

The history of the 10 ordinary sources of revenue, with some remarks as to the possibility of their expansion, follows:

1. LAND TAX.

The land tax is of the remotest antiquity and formerly produced two-thirds of the cash revenues of the Imperial Government. It arose from the fact that the Government was founded on conquest and all the land was considered the Emperor's property. But in China this theory was never pushed to extremes, and the use of the land was left to the occupants, with full rights of possession, the technical proprietorship of the Emperor being recognized by payment of an annual tax based on the rental value of the land.

In 1713 this rental value was fixed by the Emperor Kang-hsi in a decree which declared that it should stand for all time. Consequently the land tax of to-day, three-fourths tael per 6 mow (1 English acre), is, in theory at least, based on the assessments of 1713, when about 100,000,000 English acres were under cultivation. Authorized reductions in the assessments have been made from time to time on account of insurrections, floods, and other calamities, subject to restoration after the effects of the calamities had been repaired: but these reductions have been by no means canceled, and a vast amount of land, particularly in the parts of China most ravaged by the Taipings (Anhwei, Chekiang, Honan, Kiangsu, Kiangsi, Kweichow. Szechwan) is to-day undervalued on the basis of 1713. A complete revaluation of all lands in China under existing conditions would, despite the recent effects of civil war, undoubtedly result in a very material increase in the proceeds of the land tax.

But the greatest evil of the present land tax is not the obsolete assessment. It is the manner in which that assessment has been evaded by the irregular exactions of tax gatherers.

While the land tax remains nominally as fixed in 1713 and the proceeds that reach Peking are calculated on the old assessments, the "increments" added to the nominal and legal tax by local and provincial authorities have increased the actual amount collected from the landholder by as much, in some instances, as 500 per cent.

2. CUSTOMS REVENUE.

HISTORICAL SURVEY.

The collection of duties on commodities crossing the water and land frontiers of China is of almost equal antiquity with the land tax, but the customs did not become an important source of revenue until the sixteenth and seventeenth centuries, with the development of maritime trade.

The same looseness of method that characterized the collection and remittance of the land tax involved in obscurity the customs receipts of old times, and it is probable that no official ever knew how much was actually collected or how. But since 1854 the maritime customs have been collected by a highly efficient force.

The reorganization of the maritime customs was due primarily to the Taiping rebellion of 1850–1864. In September, 1853, the Taipings, who had marched out of Kwangsi and had made their devastating way down the Yangtze Valley, captured the native city of Shanghai. The loyal Chinese officials fled to the foreign settlement, which was under the guns of protecting warships, and the customhouse was closed. The foreign merchants did not wish to pay duties to unauthorized officials. So they decided to declare their goods at their respective consulates, and deposit bonds to cover the duties until the loyalist customhouse should be reopened.

This business proved rather more than the consular officials could handle, and on June 29, 1854, an agreement was signed between the Taotai of Shanghai and the British, French, and American consuls, providing for a board of three foreign inspectors who should assume the responsibility of collecting duties for the time being and attempt to build up a permanent and efficient corps for the future.

The first three inspectors were British, American, and French, but as the British inspector was the only one who spoke Chinese, he naturally took the lead, and the development of the service has continued under British inspectors general, with an understanding (reached in 1898) that the chief inspector shall continue to be British as long as the British trade in China predominates. The district inspectorships, and other positions in the service, are divided as equally as possible among citizens of the trading nations.

So well had the Maritime Customs service been organized by 1896 that when China needed foreign assistance in liquidating the obligations incurred in the war with Japan, including an indemnity to Japan of 230,000,000 taels, the foreign bankers were only too glad to advance the money needed, in three loans of £16,000,000 sterling each, and made the Maritime Customs receipts their security. And again, when in 1901 the powers imposed upon China the Boxer indemnity of 450,000,000 taels, they found acceptable security for its payment in the Maritime Customs receipts, with the salt tax as a secondary security.

It was agreed in the protocol of 1901, covering the Boxer indemnity, that the tax of 5 per cent ad valorem on imports and exports which had long been settled upon by international agreement, should be converted into specific duties on the basis of merchandise valuations of the years 1898, 1899, and 1900, and that the schedules should be revised every 10 years, in order to keep the specific duties as near as possible to equivalents of 5 per cent ad valorem. No revision took place in 1911, on account of the revolution, but on January 5, 1918, a tariff commission composed of representatives of the Chinese Government, the Maritime Customs Administration, and each of the powers trading with China, met in Shanghai for the purpose of revising the schedules so that they should yield an effective 5 per cent on current values. It was expected that the work of this commission, which completed its labors in December, 1918, would result in an increase of at least 25 per cent in China's Maritime Customs revenues, which were, in 1918, 36,345,045 taels.

RECEIPTS FOR TWELVE YEARS.

For the 12 years ending with 1918 the receipts of the Maritime Customs were as follows:

Years.	Import duties.[1]	Export duties.[2]	Coast trade duties.	Tonnage dues.	Transit dues.[3]		Opium likin.	Total.
					Inward.	Outward.		
	Haikwan taels.	*Haikwan taels.*	*Haikwan taels.*	*Haikwan taels.*	*Haikwan taels.*	*Haikwan taels.*	*Haikwan taels.*	*Haikwan taels.*
1907	14,879,247	9,454,648	1,768,982	1,321,192	1,631,383	438,017	4,370,877	33,864,346
1908	13,134,509	10,983,485	1,856,605	1,264,915	1,387,069	403,890	3,871,422	32,901,895
1909	14,084,736	12,335,675	2,016,506	1,276,218	1,409,892	510,925	3,905,965	35,539,917
1910	14,087,232	13,128,635	2,123,798	1,329,024	1,486,778	577,389	2,839,023	35,571,879
1911	14,742,801	12,622,759	2,035,694	1,346,385	1,289,991	578,039	3,564,156	36,179,825
1912	16,045,202	13,809,148	2,334,927	1,371,614	1,312,271	653,333	4,424,117	39,950,612
1913	19,938,860	13,948,315	2,439,166	1,534,878	1,668,395	621,106	3,819,133	43,969,853
1914	18,202,741	13,047,670	2,235,710	1,481,949	1,736.615	584.627	1,598,213	38.887,525
1915	14,367,221	15,439,709	2,517,713	1,194,959	1,519,507	769,433	939,164	36,747,706
1916	15,225,056	16,542,614	2,399,406	1,132,890	1,341,948	845,333	287,064	37,774,311
1917	16,161,139	16,381,663	2,351,340	994,231	1,373,861	711,509	215,706	38,189,449
1918	15,102,458	15,988,124	2,248,512	863,623	1,311,091	831,237	....	36,345,045

[1] Inclusive of opium.

[2] Under this head are included export duties on Chinese produce for home consumption carried from port to port in vessels of foreign type and junks licensed to trade under the treaty tariff.

[3] Transit dues are explained on page 43, under the heading "Taxes on commodities."

The Haikwan (customs) tael, which has been adopted at all treaty ports for the payment of duties and to measure the value of foreign imports and exports, is 581.77 grains troy of silver. Owing to the continual fluctuation of silver as measured by gold, the exchange value of the tael is fixed annually by the customs authorities. These fluctuations create the anomaly that the actual silver receipts of the customs, though giving a basis of comparison of actual trade year by year, do not give a true picture of the trade situation. The receipts for 1918, for instance, were 1,844,404 taels less than for 1917, but the exchange, or gold, value of the receipts was greater than in 1917 by $2,115,034.

LIST OF TREATY PORTS.

Maritime Customs dues are collected at the following 48 "treaty ports," which have been declared open by a series of treaties made between 1843 and 1918:

Manchuria: Aigun, Sansing, Manchouli, Harbin, Suifenho, Hunchun, Lungchingtsun, Antung, Tatungkow, Dairen, Newchwang.
Chihli: Chinwangtao, Tientsin.
Shantung: Lungkow, Chefoo, Kiaochow.
Kiangsu: Shanghai, Soochow, Nanking, Chinkiang.
Kwangtung: Canton, Kowloon, Kongmoon, Lappa, Pakhoi, Samshui, Swatow.
Fukien: Amoy, Foochow, Santuao.
Chekiang: Hangchow, Ningpo, Shasi.
Hupeh: Hankow, Ichang, Shasi.
Kiangsi: Kiukiang, Lungchow, Nanning, Wuchow.
Hunan: Changsha, Yochow.
Anhwei: Wuhu.
Szechwan: Chungking.
Yunnan: Mengtsz, Szemao, Tengyueh.
Hainan: Kiungchow.

In addition to the treaty ports, 16 cities in Manchuria, 4 in Shantung, 5 in North Chihli, 3 in Kwangtung, 3 in Tibet, 1 in Mongolia, 1 in Turkestan, 1 in Kiangsu, and 1 in Szechwan have been declared "open to trade."

NATIVE CUSTOMS.

At the treaty ports, as well as at all important stations on the coast and alongside the maritime customhouses, are native customhouses, which collect duties on goods carried by sailing junks not licensed to trade by the tariff treaty. The receipts of the Native Customs for the five years 1914–1918 have been as follows:

Ports.	1914	1915	1916	1917	1918
	Haikwan taels.	*Haikwan taels.*	*Haikwan taels.*	*Haikwan taels.*	*Haikwan taels.*
Newchwang	161,414	171,702	122,897	144,845	115,882
Tientsin	[1] 1,000,412	[1] 1,109,345	[1] 1,091,237	[1] 999,053	[1] 1,121,931
Chefoo	65,628	72,661	85,837	81,058	88,016
Ichang	66,415	61,560	60,641	55,404	39,116
Shasi	17,656	16,713	11,709	11,382	8,127
Kiukiang	385,695	407,932	384,435	347,068	343,798
Wuhu	429,762	637,054	740,448	686,430	702,537
Shanghai	217,888	228,155	213,895	229,952	232,400
Ningpo	101,742	104,553	137,177	125,160	121,016
Wenchow	32,357	38,802	39,020	48,584	51,578
Santuao	70,489	76,098	82,712	84,486	83,430
Foochow	196,736	179,051	182,190	243,507	236,193
Amoy	82,278	81,765	77,050	71,551	84,729
Swatow	75,339	111,596	115,638	122,546	121,719
Canton	261,868	261,757	216,469	285,103	299,645
Kongmoon	94,342	94,975	37,781	69,037	56,911
Wuchow	95,106	98,593	117,240	135,571	177,350
Kiungchow	26,282	25,051	20,687	25,087	19,601
Pakhoi	7,693	7,185	9,583	9,463	10,052
Total	3,389,102	3,784,548	3,746,646	3,775,284	3,974,035

[1] Not including the outward transit dues collected on behalf of and remitted to the Maritime Customs.

By the Peace Protocol of 1901, the foregoing native customhouses, being within 15 miles of a treaty port, have been placed under the supervision of the foreign commissioner of customs of that port, with the result that a regular tariff has been substituted for the irregular levies of native customhouses. At other points the Native Customs continue to be administered by Chinese officials, and lack of proper statistics prevents an accurate statement of their receipts. The average amount of Native Customs receipts remitted to Peking in the four years 1914–1917 was about $7,500,000. If administered similarly to the Maritime Customs, the Native Customs revenues, which have been pledged as security for a number of internal loans and as part security for certain foreign loans, could undoubtedly be materially increased.

FOREIGN OBLIGATIONS SECURED UPON MARITIME CUSTOMS RECEIPTS.

The foreign obligations secured upon the Maritime Customs receipts are:

Loans.	Original amount.	Outstanding June 30, 1917.	Rate.
			Per cent.
Franco-Russian loan of 1895	Fr.400,000,000 £15,820,900	£9,408,269	4
Anglo-German loan of 1896	£16,000,000	£10,073,536	5
Anglo-German loan of 1898	£16,000,000	£12,650,946	4½
Boxer indemnity of 1901	Tls450,000,000 [1] £68,5000,000	£62,728,600	4

[1] Includes a loan of £1,000,000 for adjustment of exchange.

In considering the payment of foreign obligations out of the Maritime Customs receipts it must be remembered that the foreign charges are payable in gold, while the customs receipts are in silver. The recent sensational advance in the value of silver as measured by gold has been of very great advantage to China, as it has been able to buy more and more gold with a given amount of silver. Thus the customs receipts of 1917, 38,189,000 taels, had a gold value of £8,241,857, or more than £2,000,000 above the annual foreign charge on the Maritime Customs, while the receipts of 1916, 37,764,496 taels, was worth, at the average rate of exchange for that year, only £6,264,496, or not very much more than was required to pay the foreign charges for that year. Silver is not likely to decline materially while present conditions prevail, but it should not be forgotten, in estimating China's financial future, that its favorable status at this time is due somewhat to the abnormal value of silver.

BOXER PROTOCOL.

By the terms of the Boxer, or Peace, Protocol, and those of the Reorganization Loan of 1913, the Maritime Customs receipts and the salt tax were made interlocking securities; that is, if the Maritime Customs receipts fail to meet the charges on the customs (as has happened in several years), the salt tax can be drawn upon; conversely, if the customs receipts exceed requirements and the salt receipts fall short, the customs surplus can be used to pay interest on the Reorganization Loan, which is primarily a charge on the Salt Administration.

The high relative value of silver in 1917, together with the fact that China ceased to pay interest and installments to Germany and Austria after its entrance into the war, enabled China to pay, with the £8,241,857 sterling receipts of the customs, not only the interest and installment due on the English part of the loans of 1896 and 1898, the Franco-Russian Loan of 1895, and the Boxer Indemnity, but, for the last six months of the year, to pay all the interest on the Reorganization Loan. And, after this, the customs still had a surplus of 10,000,000 taels, of which 2,000,000 was released to the Chinese Government and the balance paid into the salt account as reimbursement of contributions previously made by salt to the payment of the Boxer Indemnity.

In January, 1918, as a result of the entrance of China into the Great War, all the Entente Powers but Russia agreed to a postponement of Boxer payments for five years, and Russia agreed to a one-third reduction, thus lightening China's annual financial burden by about £2,000,000. This action was a postponement, not a remission of payments, so it will not cause any reduction in the end in the obligations of the Maritime Customs.

3. SALT GABELLE.

From time immemorial the salt trade has been treated as a Government monopoly in China. It was not, however, so administered as to yield the maximum return until the Reorganization Loan of 1913, by the terms of which the Salt Gabelle (the Gallicized name of the Salt Administration) was reorganized and the collection of its revenues placed under expert direction.

Formerly China was divided, for purposes of administration of the salt monopoly and tax, into 11 salt areas and the areas subdivided into a great number of districts in an attempt to equalize as far as possible the natural conditions in various places. Since the Government not only taxed salt but acted as middleman between producer and retailer (frequently as transportation agent as well as wholesaler), and in some places handled the whole salt business from the well, lake, or sea to the consumer's table, it was necessary to make a schedule of such charges as the traffic would bear. A high tax on salt near the sea, for example, and a consequent high price to the consumer, would set everybody to evaporating his own salt, and the prevention of illicit manufacture would cost more than the revenues collected. In places where no salt was produced a high tax could hardly be evaded, but too high a tax would lessen consumption and so cut down the Government's receipts.

Such considerations as these made the Salt Administration a highly complicated affair, and resulted in a set of schedules beside which the proverbial Chinese puzzle was simplicity itself. What the average salt tax was for the whole country is as difficult to determine as the aggregate receipts from taxes and the public sale of salt. The individual tax ranged from $0.65 silver to $5.09 per picul (133 1/3 pounds), according to the location of the consuming district. As to the revenues collected, the most that was ever received in Peking in one year, according to investigations made before the Reorganization Loan was signed, was 13,000,000 taels. When the new Chinese Republic in 1913 approached the international bankers for a loan of £25,000,000 with which to reorganize the nation's finances, the salt revenues were offered as security, subject to some small underlying liens, which included the contingent liability under the Boxer protocol. The bankers demanded as essential to the loan a complete reorganization of the Salt Administration. This demand the Chinese Government conceded, and in December, 1913, provisional order No. 43 was promulgated, providing for a central administration under the Ministry of Finance, with two chief inspectors, one Chinese and one foreign. The foreign inspector (an Englishman) has largely controlled the collection of the salt tax since that date, and has had charge of the payment of the obligations secured upon the salt receipts. The Chinese still control entirely the production and sale of salt, in regard to which the foreign inspector is merely an adviser. Much progress has been made, however, in the direction of abolition of the monopoly of salt and the introduction of free trade.

It was proposed in the Reorganization Loan agreement that a flat tax should be adopted, $2 for one half of China and $2.50 for the other, but that was soon found impracticable and the old system of rates was retained, with modifications that tended to make the tax more equitable.

In 1917 the net salt revenue paid into the "group" banks (representing the Reorganization Loan syndicate) was $70,627,249 silver, as compared with 13,000,000 taels (about $20,000,000 silver), the amount returned to Peking during one year (an especially unfavorable year) previous to the reorganization.

As was stated in the previous section, the surplus receipts of the Maritime Customs for 1917 paid most of the obligations primarily chargeable on the salt revenues; so the final free surplus from salt in 1917, after all charges and the maintenance of a fixed reserve of $10,000,000, was $68,613,370, which was released for the general use of the Chinese Government.

The salt revenues, charges upon them, and releases for the four years since the reorganization have been as follows:

Items.	1914	1915	1916	1917
CHARGES AND OBLIGATIONS.				
1. Anglo-German loan of 1898	$2,700,025			
2. Chinese indemnity of 1901	13,505,834	$23,787,463	$10,071,371	
3. Hupeh provincial bonds of 1909	99,561	149,343	150,510	$50,048
4. Chihli provincial bonds of 1910	725,974	731,128	725,976	725,974
5. Chinese Government 5 per cent gold Crisp loan of 1912	4,075,179	2,998,885	2,383,368	1,740,888
6. Chinese Government 5 per cent gold reorganization loan of 1913		6,932,263	11,580,682	5,620,392
7. Hukuang railway, loan of 1911				376,094
Total	21,106,573	34,599,082	24,911,907	8,513,396
Releases to Government	31,304,818	27,523,066	52,266,185	68,613,370

4. TAXES ON COMMODITIES, INCLUDING LIKIN.

The taxes in this category include production and consumption duties of various kinds and taxes on commodities in transit, commonly called likin, a word that means "a contribution of a thousandth" or one-tenth of 1 per cent. The likin tax was one of the evil results of the Taiping Rebellion, for the suppression of which the invention of new taxes was made necessary, and it has constituted one of the principal factors hampering the growth of China's inland commerce. Likin barriers are placed along all the highways of commerce, including the railways, and, though an official tariff said to average 3 per cent is in existence, they levy upon passing commodities irregular tolls that not only dam the stream of business but raise, very materially, the prices of those things that manage to get over the obstruction. It has been officially stated by the Ministry of Finance that lumber coming down to Peking from the Upper Yalu pays likin tolls totaling 17 per cent, in addition to which it must pay the Peking octroi of 3 per cent before it goes through the city's gate; and it would not be at all difficult to find instances of even higher taxation on commodities moving from one place to another. Even between Tientsin and Peking—two great cities only 80 miles apart, and the former the port for the latter—a likin barrier exists at Fengtai which, together with Peking octroi, tends to reduce the business of the capital to a minimum.

The larger traders have combined, through their guilds, to effect some sort of an arrangement with the collectors. By these arrangements an amount representing usually 3 per cent at the point of departure and 2 per cent at each inspection station is paid through the guild, it being the practice to limit the amount collected in one province to 10 per cent.

Foreign goods have a decided advantage in regard to likin through the treaty provisions providing for the issuance of transit passes. Foreign goods may be shipped into the interior to nontreaty ports by paying 2½ per cent ad valorem, in addition to the import tax of 5 per cent. The treaties have been interpreted by some of the powers to mean that the transit pass frees the goods from all inland taxation, but the Chinese have refused to concede this, maintaining that the treaties do not forbid the imposition of a destination or landing tax. This point is still at issue and is not likely to be settled soon. The transit pass is, indeed, a subject of continual contention between the customs authorities and foreign merchants, but in spite of the many complications that seem to attend its use it is of such value that dummy foreign firms are frequently formed for the sole purpose of lending their names to Chinese merchants, enabling them, if they are clever, to secure transit passes and thus escape the greater part of the likin burden.

Investigations have been made, with ensuing reports and recommendations, and all kinds of diplomatic attempts have been made to obtain the abolition of the likin. This was, indeed, provided for by the Mackay treaty of 1902 with Great Britain. The proceeds of the likin are employed in so many different ways, including their use as part security for loans to the central Government as well as provincial loans, that this obnoxious tax seems almost invulnerable. The likin, if abolished, would need to be replaced by some means of raising at least as much revenue as the likin now provides, probably at least 40,000,000 taels a year; this might be done by the imposition of a surtax on the Maritime Customs, but the political perils of making so radical a change in internal administration seem for the immediate future insuperable.

Everybody, foreigner or Chinese, who is interested in the growth of China's trade favors the elimination of the likin, and some day it will undoubtedly be removed.

5. REGULAR AND MISCELLANEOUS TAXES.

The taxes indicated in the above heading include tax on title deeds, wine tax, tobacco tax, tax on cattle, tea tax, business tax, mining tax, shop tax, butcher tax, pawnshop tax, sugar tax, timber tax, fishing tax.

6. REGULAR AND MISCELLANEOUS DUTIES.

Among the duties indicated in the above heading are wine and tobacco duty, grain duty, silk duty, butchery duty, house duty, commodity duty, salt duty, cattle duty, tea duty, tax-certificate duty, ship duty, rough-cloth duty, shop duty, duty on weights and measures, wagon duty, sugar duty, oil duty, business duty, salt liquor duty, cotton duty, camel duty, bamboo and timber duty, sulphur and niter duty.

It would appear from the lists under headings 5 and 6 that the Chinese are the most miscellaneously taxed people in the world, but happily each of the taxes mentioned above is in itself very small, and even in the aggregate they do not mean a large amount to the individual. The greatest evil of these miscellaneous impositions is in the lack of system with which they are levied and collected. The Chinese themselves admit that Chinese taxation needs radical revision, which would not only ameliorate the condition of the people by equalizing and lessening their burdens, but would unquestionably increase the Government's revenues. It is obvious that such a list of heterogeneous taxes as that given above must necessitate a vast amount of costly and unnecessary official work.

Of the 36 taxes and duties enumerated above, the wine and tobacco tax is the only one that produces a large revenue, and the return from that is much smaller than the revenues of the Government monopoly of the sale of wine and tobacco, which are carried in the budget under the head of "Income received directly by the Government."

The wine tax (the wine and tobacco tax) bureau has been pledged as part security for the Banque Industrielle loan of 1913, and the wine and tobacco tax for the so-called American (the Continental & Commercial Savings & Trust Co. of Chicago) loan of November, 1916. This latter loan was for $5,000,000 gold, with option to the bank of lending an additional $25,000,000 gold on the same security. It was proposed when the negotiations for the Chicago loan were under way that the collection of the wine and tobacco taxes and the operation of the Government wine and tobacco monopoly should be combined under one bureau and the whole administration thereof reformed in some such way as the salt administration was reformed at the time of the Reorganization Loan of 1913. Figures were presented at that time by the Ministry of Finance showing that the combined revenues of the wine and tobacco tax and the wine and tobacco monopoly could very easily be made to exceed $25,000,000 a year. Since then it has been declared freely by the foreign chief inspector of the Salt Gabelle that a thorough reform of the wine and tobacco administration should result in a net revenue even greater than that from salt, which exceeds $70,000,000 a year.

7. INCOME FROM GOVERNMENT INVESTMENTS.

This income is composed of revenues of a few factories owned by the State (the largest of which is a paper mill at Hankow), of dividends on certain shares in industrial enterprises, and of rent from State land. The items are all small and are at present negligible.

8. MISCELLANEOUS INCOME OF PROVINCES.

This income comprises fees of various kinds, interest on official funds, etc.

9. INCOME OF CENTRAL ADMINISTRATION.

This income is made up of similar items and the profits of the Bureau of Engraving and Printing.

10. INCOME RECEIVED DIRECTLY BY CENTRAL GOVERNMENT.

As before stated, this income includes the revenues of the wine and tobacco monopoly; it also includes surplus earnings of the Government Railways and revenues from stamp duties, all of which are important enough to have been used as security for foreign loans from time to time, as will be seen in the table beginning on page 214.

SUMMARY OF SITUATION.

No budget has been published for the year from July 1, 1918, to June 30, 1919, but the ordinary revenues have been semiofficially estimated at about $500,000,000 and the total expenses of the Government at about $600,000,000, leaving $100,000,000 to be raised by extraordinary means.

The fact that China in these years of world-wide financial dislocation and of disturbances within its own borders can not make both ends meet by ordinary taxation is no indication of bankruptcy. China's resources are vast, and a very large increase of its ordinary revenues upon the return of peace is not only possible but quite feasible. A thorough reform of the Chinese system of taxation should result in revenues approaching the amount above indicated without adding anything to the burden of taxation borne by the people. It is certainly quite within reason to anticipate that the land tax can be made to yield double its present revenue, that the returns of the wine and tobacco tax and monopoly can be more than doubled, and that, with the development of industries, the income of the railways and other productive Government property will become very important features of the budget of ordinary revenues. The preliminary report of the Ministry of Communications for 1917 shows a profit of $20,000,000 on all the Chinese Government Railways.

EXTRAORDINARY REVENUES.

The extraordinary income of the Chinese Government, which is estimated in the 1916–17 budget at $84,828,924, consists of supertaxes of a nature similar to the ordinary taxes, and of loans and bank advances. These last two items are, naturally, the large ones. When an individual or a nation whose resources are known to be great, but nonliquid, is temporarily embarrassed, he or it can usually find plenty of bankers ready to assist, at a rate measured by the urgency of the necessity. And this has been the experience of China, even in the midst of the greatest crisis of all history.

CHINA'S GOVERNMENT DEBT.

The history of China's Government debt is interesting enough for a volume, interwoven as these financial operations have been with international politics. Some idea of China's career as a borrower can be obtained from the tabulation of loans beginning on page 214. From the date of the first foreign loan, 1875, to the period of the Chino-Japanese war, England's predominance in foreign relations with China is evident. All loans between 1875 and 1895 were English, with one exception. They were all small and were promptly paid when due.

The disastrous war with Japan, resulting in an empty treasury and an indemnity of 230,000,000 taels to pay, brought offers from all the Powers that were anxious to obtain favors from China. Russia came forward with a loan of 400,000,000 francs, in which loan France participated; England and Germany followed with two joint loans of

£16,000,000 each, equaling 400,000,000 francs. And, later, Russia obtained Port Arthur, Germany Kiaochow, France Kwangchow, and England Weihaiwei. Then followed the era of railway development, each European Power contending with the others for railway contracts and spheres of influence. Railway borrowing continued after the restoration of friendly relations with the Powers following the Boxer Rebellion. The circumstances of the loan negotiations that accompanied the birth of the Republic were not particularly advantageous to Chinese interests, but the great Reorganization Loan of 1913 involved the reform of the Salt Administration. A new economic epoch appeared to be dawning for the ancient empire become republican, when the European war broke out, and European financial assistance was rendered impossible for the next few years. Japan alone, of all the world Powers, remained in a position to extend the helping hand, and since 1914, with the exception of one small loan from America, China's borrowing has been from its island neighbor. The estimated aggregate of Japan's loans to China up to January, 1919, is $300,000,000.

Beginning on the next page is a list of what are believed to be all the foreign loans to the central Government of China from 1875 to July 1, 1918.

CHINESE GOVERNMENT DEBT.

Denomination of loan.	Date of loan.	Amount.	Interest.	Maturity.	Security.	Price to bankers.	Price to public.	Bank.	Remarks.
			Per cent.						
1. Chinese Imperial Government.	1875	£352,700	8	1885				Hongkong & Shanghai Banking Corporation.	Paid off.
2. Chinese Imperial Government.	1876	£274,915	8	1885				do	Do.
3. Chinese Imperial Government.	1874	Tls. 2,000,000	9	1884				Oriental Bank and Jardine, Matheson & Co.	Do.
4. Chinese Imperial Government.	1875	Tls. 1,000,000	8	1885				do	Do.
5. Chinese Imperial Government.	1877	£1,604,276	8	1884				Hongkong & Shanghai Banking Corporation.	Do.
6. Chinese Imperial Government.	1879	Sh. tls. 1,949,500	8	1884				do	Do.
7. Chinese Imperial Government.	1881	Sh. tls. 4,834,000	8	1887				do	Do.
8. Chinese Imperial Government.	1885	£1,505,000	7	1895				do	Do.
9. Chinese Imperial Government.	1885	£750,000	6	1895				do	Do.
10. Chinese Imperial Government.	1885	£1,500,000	6	1895				Baring Bros.	Do.
11. Chinese Imperial Government (silver loan).	1886	[1] Tls. 767,200	7	1917				Hongkong & Shanghai Banking Corporation.	Do.
12. Chinese Imperial Government.	1887	Mks. 5,000,000	5½	1902				R. Warshauer & Co., Berlin, and J. H. S. Stern, Hamburg.	Do.
13. Chinese Imperial Government.	1894	£1,635,000 ([2] Tls. 10,000,000)	7	1914	Maritime customs	98		Hongkong & Shanghai Banking Corporation.	Do.
14. Chinese Imperial Government.	1895	£3,000,000	6	1914	do	92	96½	do	Do.
15. Chinese Imperial Government (Cassel loan).	1895	£1,000,000		1915	do	95½	106	Chartered Bank of India, Australia, etc.	Do.
16. Chinese Imperial Government.	1895	£1,000,000	6	1915	do		104½ and 99	National Bank für Deutschland, Con der Heydt Co., Berlin.	Do.
17. Chinese Imperial Government.	1895	£15,820,000 (Fr. 400,000,000)	4	1931	Maritime customs, plus Russian Government guaranty.	94½	99.20 and 99.80	Hottinger Bank of Paris, Comptoir National, Crédit Lyonnais, etc.	Fr. 200,000,000 paid off.
18. Chinese Imperial Government.	1896	£16,000,000	5	1932	Maritime customs (Anglo-German).	94	98¾ and 99	Hongkong & Shanghai Bank and Deutsch-Asiatische Bank.	£6,000,000 paid off.
19. Chinese Imperial Government.	1898	£16,000,000	4½	1943	Maritime customs, salt revenue, and likin of certain ports of Yangtze and Chekiang.	83	90	do	£4,000,000 paid off.
20. Loan for the Lukowkiao Railway.	1898	Fr. 4,500,000	5	1928	The railway	90	96½	Société de Chemins de Fer en Chine.	Redeemed 1909.
21. Supplementary to above to complete line from Peking to Hankow.	1905	Fr. 12,500,000	5	1928	do	90	96½	do	Do.

22. Imperial Railways of North China.	1898	£2,300,000	5	1944	.....do	90	97	Hongkong & Shanghai Bank, for the British & Chinese Corporation.	£700,000 paid off.
23. Anglo-Danish telegraph loan.	1900	£210,000	5	1930	Shanghai-Taku cable				
24. Same	1901	£48,000	5	1930	Chefoo-Taku cable				
25. Boxer indemnities	1901	H. tls. 400,000,000 ([2] £67,500,000)	4	1940	Maritime customs and salt revenues.			International Banking Syndicate.	Tls. 50,000,000 paid off; payments postponed 5 years in 1918.
26. Loan for the Cheng-Tai Railway (Shansi).	1902	Fr. 40,000,000	5	1932	The railway	90	96	Comptoir National d'Escompte, Société Générale, Russo-Asiatic Bank, etc.	Fr. 20,000,000 paid off.
27. Loan for the Kaifeng-Honan Railway.	1903	Fr. 25,000,000	5	1934	.....do	90	96½	Empain, Bernard & Jarilowsky.	Fr. 10,000,000 paid off.
28. Same	1907	Fr. 16,000,000	5	1934	.....do	90	98	.....do	
29. Loan for the Shanghai-Nanking Railway.	1904	£2,250,000	5	1953	.....do	90	97½	Hongkong & Shanghai Bank.	Due as a whole, 1953.
30. Same		£650,000	5	1953	.....do	90	95½	.....do	
31. Loan for the Honan Railway.	1905	£700,000	5	1935	.....do	90	87½	Peking Syndicate	Due as a whole, 1935.
32. Same	1905	£100,000	5	1935	.....do	90	87½	.....do	
33. Imperial Government	1905	£1,000,000	5	1915	Peking octroi and Shansi likin.		97	Hongkong & Shanghai Bank and Deutsch-Asiatische Bank.	Repaid.
34. Hongkong Government loan for redemption of Canton-Hankow Railway contract.	1906	£1,000,000	4½	1915	Opium taxes of Hunan, Hupeh, Kwangtung.	Par.	Par.	Hongkong & Shanghai Bank.	Do.
35. Loan for Canton-Kowloon Railway.	1907	£1,500,000	5	1937	The railway and its revenues.	94	Par.	British & Chinese Corporation.	Due as a whole, 1937.
36. Loan to the viceroy of Canton.	1907	Tls. 2,000,000	7	1917	Salt revenues of Hupeh			Yokohama Specie Bank	Repaid.
37. Tientsin-Pukow Railway loan, first issue.	1908	£3,000,000	5	1938	Revenues of the railway and provincial revenues.	93	98¾	Hongkong & Shanghai Bank, and Deutsch-Asiatische Bank.	First installment due 1919.
38. Tientsin-Pukow Railway loan, second issue.	1909	£2,000,000	5	1938	First lien on the line, likin, and interior revenues of Chihli, Shantung, and Kiangsu.	93	100	.....do	
39. Tientsin-Pukow Railway loan, third issue.	1910	£3,000,000	5	1940	Likin of Chihli, Shantung, Kiangsu, and Anhwei.	95	100	.....do	
40. Shanghai-Hangchow-Ningpo Railway loan.	1908	£1,500,000	5	1938	Surplus revenues of the Railways of North China.	93	99	British & Chinese Corporation.	Do.
41. Anglo-French loan for redemption of Peking-Hankow Railway.	1908	£5,000,000	5	1938	Consumption taxes in Provinces of Chihli, Chekiang, Kiangsu, and Hupeh.	94	98	Hongkong & Shanghai Bank, and Banque de l'Indo-Chine.	Converted to 4½ per cent in 1923.
42. First loan for Kirin-Changchun Railway, refunded by No. 43.	1908	Yen 2,150,000 (£215,000)	5	1934	Revenues of the railway		([3])	Yokohama Specie Bank	Refunded by No. 43.
43. Revised loan for Kirin-Changchun Railway.	1917	Yen 6,500,000	5	1947	The railway	91½	([3])	South Manchuria Railway	

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[1] £1=8 taels.

[2] At 3s. per tael.

[3] Not offered to the public.

CHINESE GOVERNMENT DEBT—Continued.

Denomination of loan.	Date of loan.	Amount.	Interest.	Maturity.	Security.	Price to bankers.	Price to public.	Bank.	Remarks.
			Per cent.						
44. Loan to the viceroy of Hukuang.	1909	Tls. 500,000	5	1919	Salt revenues			Hongkong & Shanghai Bank.	Repaid.
45. Japanese loan for Hsinmintun-Mukden Railway.	1909	Yen 320,000	5	1927	Revenues of the railway	93	(1)	Yokohama Specie Bank	
46. Japanese loan for redemption of Peking-Hankow Railway.	1910	£220,000	7	1920	Treasury bonds	97½	(1)	do	£30,000 paid off.
47. Peking-Hankow redemption loan, called "Birchal loan."	1910	£450,000	7	1920	do	100	108	London, City & Midland Bank.	£45,000 paid off.
48. Peking-Hankow redemption loan, called "Birchal loan"; second issue.	1912	£150,000	7	1920	do	92	Par.	City Safe Deposit & Agency Co.	£15,000 paid off.
49. Chinese Imperial Government telegraph loan.	1911	£500,000	5	1947	Telegraph receipts		Par.	Eastern Extension Australasia & China Telegraph Co. and Great Northern Telegraph Co.	£100,000 paid off.
50. Chinese Imperial Government railway loan.	1911	Yen 10,000,000 (£1,000,000)	5	1936	Tribute from conversion taxes of Kiangsu.	95	97½	Yokohama Specie Bank	First installment due 1922.
51. Hukuang railway loan	1911	£6,000,000	5	1931	Salt revenues and taxes of Hupeh and Hunan.	95	199	Four-Power group	First installment due 1921.
52. Nanchang-Kiukiang railway loan.	1912	£500,000	6½	1927	The railway	95	199	East Asia Development Co.	First installment due 1922.
53. Loan to viceroy of Hankow	1911	Tls. 2,000,000	7	1921	Salt revenues		Par.	Five-Power group	Repaid.
54. First Arnhold-Karberg loan	1912	£300,000	6	1916	Peking octroi	95		Arnhold, Karberg & Co., and Austrian banks.	Final installments of £60,000 unpaid.
55. Second Arnhold-Karberg loan	1912	£450,000	6	1921	do	95		do	£360,000 unpaid.
56. Third Arnhold-Karberg loan.	1913	£300,000	6	1917	Treasury notes	95		do	£200,000 unpaid.
57. Crisp loan	1912	£5,000,000	5	1952	Salt revenues	89	95	Lloyds' Bank and other English banks outside group.	Repaid.
58. Franco-Belgian loan	1912	£1,000,000	5	1913	Revenues of Peking-Kalgan Railway.	97		Banque Sino-Belge	Do.
59. Second Franco-Belgian loan	1913	£250,000	5	1913	do	97		do	Do.
60. Italo-Belgian loan (converted in 1914 into No. 61).	1912	£625,000	8	1913	Treasury notes			Banque des Reports, etc., Banque Italo-Belge.	Converted into No. 61.
61. Italo-Belgian loan	1914	£400,000	5	1918	Land tax and customs dues.			Banque Italo-Belge	£300,000 paid off.
62. Lung-Hai Railway loan (authorized Fr.250,000,000).	1913	Fr.100,000,000	5	1952	The railway	[2] 91	91	Compagnie Générale des Chemins de fer, etc.	

63. Reorganization loan of 1913	1913	£25,000,000	4	1960	Salt revenues	81	90	Five-Power group with option to loan £35,000,000 more for administrative purposes.	First installment due 1924.
64. First Austrian loan	1913	£1,200,000	6	1917	Stamp tax	92	....	Arnhold, Karberg & Co., and Austrian banks.	No installments paid since 1916; outstanding total of three loans, £24,466,000.
65. Second Austrian loan	1913	£2,000,000	6	1917	do	93	....	do	
66. Third Austrian loan	1913	£500,000	6	1917	do	92	....	do	
67. Austrian postponement loan (covering unpaid installments of 64, 65, and 66).	1916	£1,233,000	8	1920	do	92	....	do	Covers December, 1915, installment of three above loans.
68. Banque Industrielle loan	1913	Fr. 100,000,000	5	1960	Revenues of Pukow works, etc., Peking municipal taxes, alcohol tax north of Yangtze.	....	94.25	Banque Industrielle de Chine, Crédit Français, etc.	For productive industrial purposes.
69. Honan Railway loan	1914	£800,000	5	1935	The railway	....	87½	Lloyds' Bank for the Peking Syndicate.	
70. Chin-Yu Railway loan, advance on (authorized, Fr. 600,000,000 at 5 per cent).	1914	Fr. 32,115,500	6	1919	do	89½	....	Société Belge des Chemins de fer en Chine.	Fr. 2,000,000, repaid.
71. Japanese "Hsin-ya advance"	1916	Yen 5,000,000	6	1919	....	94	....	Yokohama Specie Bank	
72. American loan	Sept., 1916.	G. $5,000,000	6	1919	Wine and tobacco tax	91	....	Continental & Commercial Savings & Trust Co., with option to loan $25,000,000 more.	
73. Japanese advance of second reorganization loan.	Aug., 1917.	Yen 10,000,000	7	1918	Salt revenues	93	....	Yokohama Specie Bank, as agent of Five-Power group.	To be repaid out of second reorganization loan, if made.
74. Ministry of Communications, for redemption of Bank of Communications notes.	Jan., 1917.	Yen 5,000,000	7½	1920	$1.500,000 shares of bank stock and $4,000,000 Treasury bonds.	....	Par.	Japanese banking group	Japanese group obtained right to appoint adviser to Bank of Communications.
75. Ssupingkai-Chengchiatun Railway loan.	Feb., 1917.	Yen 2,600,000	7	1918	Revenues of the railway	Par.	....	Yokohama Specie Bank	South Manchuria Railway Co. to operate the line.
76. Chihli flood-relief loan	Oct., 1917.	Yen 5,000,000	7	1918	Revenues of three native customhouses, including Dolonor.	Par.	....	11 Japanese banks	
77. Grand Canal loan	Nov., 1917.	G. $6,000,000	7	....	Secured by canal property, tolls, reclaimed lands, etc.	Par.	....	American International Corporation and Industrial Bank of Japan.	
78. Bureau of Engraving and Printing loan.	Jan., 1918.	Yen 2,000,000	8	1921	Plant of Bureau of Engraving and Printing.	98	....	Mitsui Bussan Kaisha	
79. Second Japanese advance on second reorganization loan.	Jan., 1918.	Yen 10,000,000	7	1919	Surplus salt revenue	99	....	Yokohama Specie Bank, as agent for Five-Power group.	To be repaid out of second reorganization loan, if made.
80. Plague-suppression loan	Jan., 1918.	Yen 1,000,000	7	1919	Salt surplus	Par.	....	do	To be refunded in 10 months.
81. Japanese "arms" loan	Jan., 1918.	Yen 14,000,000	7	....	....	....	....	....	

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[1] Not offered to the public.

[2] Less 6 per cent discount.

CHINESE GOVERNMENT DEBT—Continued.

Denomination of loan.	Date of loan.	Amount.	Interest.	Maturity.	Security.	Price to bankers.	Price to public.	Bank.	Remarks.
			Per cent.						
44. Loan to the viceroy of Hukuang.	1909	Tls. 500,000	5	1919	Salt revenues			Hongkong & Shanghai Bank.	Repaid.
45. Japanese loan for Hsinmintun-Mukden Railway.	1909	Yen 320,000	5	1927	Revenues of the railway	93	(1)	Yokohama Specie Bank	
46. Japanese loan for redemption of Peking-Hankow Railway.	1910	£220,000	7	1920	Treasury bonds	97½	(1)	do	£30,000 paid off.
47. Peking-Hankow redemption loan, called "Birchal loan."	1910	£450,000	7	1920	do	100	108	London, City & Midland Bank.	£45,000 paid off.
48. Peking-Hankow redemption loan, called "Birchal loan"; second issue.	1912	£150,000	7	1920	do	92	Par.	City Safe Deposit & Agency Co.	£15,000 paid off.
49. Chinese Imperial Government telegraph loan.	1911	£500,000	5	1947	Telegraph receipts		Par.	Eastern Extension Australasia & China Telegraph Co. and Great Northern Telegraph Co.	£100,000 paid off.
50. Chinese Imperial Government railway loan.	1911	Yen 10,000,000 (£1,000,000)	5	1936	Tribute from conversion taxes of Kiangsu.	95	97½	Yokohama Specie Bank	First installment due 1922.
51. Hukuang railway loan	1911	£6,000,000	5	1931	Salt revenues and taxes of Hupeh and Hunan.	95	199	Four-Power group	First installment due 1921.
52. Nanchang-Kiukiang railway loan.	1912	£500,000	6½	1927	The railway	95	199	East Asia Development Co.	First installment due 1922.
53. Loan to viceroy of Hankow	1911	Tls. 2,000,000	7	1921	Salt revenues		Par.	Five-Power group	Repaid.
54. First Arnhold-Karberg loan	1912	£300,000	6	1916	Peking octroi	95		Arnhold, Karberg & Co., and Austrian banks.	Final installments of £60,000 unpaid.
55. Second Arnhold-Karberg loan	1912	£450,000	6	1921	do	95		do	£360,000 unpaid.
56. Third Arnhold-Karberg loan.	1913	£300,000	6	1917	Treasury notes	95		do	£200,000 unpaid.
57. Crisp loan	1912	£5,000,000	5	1952	Salt revenues	89	95	Lloyds' Bank and other English banks outside group.	Repaid.
58. Franco-Belgian loan	1912	£1,000,000	5	1913	Revenues of Peking-Kalgan Railway.	97		Banque Sino-Belge	Do.
59. Second Franco-Belgian loan	1913	£250,000	5	1913	do	97		do	Do.
60. Italo-Belgian loan (converted in 1914 into No. 61).	1912	£625,000	8	1913	Treasury notes			Banque des Reports, etc., Banque Italo-Belge.	Converted into No. 61.
61. Italo-Belgian loan	1914	£400,000	5	1918	Land tax and customs dues.			Banque Italo-Belge	£300,000 paid off.
62. Lung-Hai Railway loan (authorized Fr.250,000,000).	1913	Fr.100,000,000	5	1952	The railway	[2] 91	91	Compagnie Générale des Chemins de fer, etc.	

63. Reorganization loan of 1913	1913	£25,000,000	4	1960	Salt revenues	84	90	Five-Power group with option to loan £35,000,000 more for administrative purposes.	First installment due 1921.
64. First Austrian loan	1913	£1,200,000	6	1917	Stamp tax	92	....	Arnhold, Karberg & Co., and Austrian banks.	No installments paid since 1916; outstanding total of three loans, £24,466,000.
65. Second Austrian loan	1913	£2,000,000	6	1917	do	93	....	do	
66. Third Austrian loan	1913	£500,000	6	1917	do	92	....	do	
67. Austrian postponement loan (covering unpaid installments of 64, 65, and 66).	1916	£1,233,000	8	1920	do	92	....	do	Covers December, 1915, installment of three above loans.
68. Banque Industrielle loan	1913	Fr. 100,000,000	5	1960	Revenues of Pukow works, etc., Peking municipal taxes, alcohol tax north of Yangtze.	....	94.25	Banque Industrielle de Chine, Crédit Français, etc.	For productive industrial purposes.
69. Honan Railway loan	1914	£800,000	5	1935	The railway	....	87½	Lloyds' Bank for the Peking Syndicate.	
70. Chin-Yu Railway loan, advance on (authorized, Fr. 600,000,000 at 5 per cent).	1914	Fr. 32,115,500	6	1919	do	89½	....	Société Belge des Chemins de fer en Chine.	Fr. 2,000,000, repaid.
71. Japanese "Hsin-ya advance"	1916	Yen 5,000,000	6	1919	....	94	....	Yokohama Specie Bank	
72. American loan	Sept., 1916.	G. $5,000,000	6	1919	Wine and tobacco tax	91	....	Continental & Commercial Savings & Trust Co., with option to loan $25,000,000 more.	
73. Japanese advance of second reorganization loan.	Aug., 1917.	Yen 10,000,000	7	1918	Salt revenues	93	....	Yokohama Specie Bank, as agent of Five-Power group.	To be repaid out of second reorganization loan, if made.
74. Ministry of Communications, for redemption of Bank of Communications notes.	Jan., 1917.	Yen 5,000,000	7½	1920	$1,500,000 shares of bank stock and $4,000,000 Treasury bonds.	....	Par.	Japanese banking group	Japanese group obtained right to appoint adviser to Bank of Communications.
75. Ssupingkai-Chengchiatun Railway loan.	Feb., 1917.	Yen 2,600,000	7	1918	Revenues of the railway	Par.	....	Yokohama Specie Bank	South Manchuria Railway Co. to operate the line.
76. Chihli flood-relief loan	Oct., 1917.	Yen 5,000,000	7	1918	Revenues of three native customhouses, including Dolonor.	Par.	....	11 Japanese banks	
77. Grand Canal loan	Nov., 1917.	G. $6,000,000	7	....	Secured by canal property, tolls, reclaimed lands, etc.	Par.	....	American International Corporation and Industrial Bank of Japan.	
78. Bureau of Engraving and Printing loan.	Jan., 1918.	Yen 2,000,000	8	1921	Plant of Bureau of Engraving and Printing.	98	....	Mitsui Bussan Kaisha	
79. Second Japanese advance on second reorganization loan.	Jan., 1918.	Yen 10,000,000	7	1919	Surplus salt revenue	99	....	Yokohama Specie Bank, as agent for Five-Power group.	To be repaid out of second reorganization loan, if made.
80. Plague-suppression loan	Jan., 1918.	Yen 1,000,000	7	1919	Salt surplus	Par.	....	do	To be refunded in 10 months.
81. Japanese "arms" loan	Jan., 1918.	Yen 14,000,000	7	....	....	....	....	....	

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[1] Not offered to the public.

[2] Less 6 per cent discount.

CHINESE GOVERNMENT DEBT—Continued.

Denomination of loan.	Date of loan.	Amount.	Interest.	Maturity.	Security.	Price to bankers.	Price to public.	Bank.	Remarks.
			Per cent.						
82. Second loan to Ministry of Communications.	Jan., 1918.	Yen 20,000,000	7½	1921	$25,000,000 in Treasury bonds.	....	....	Bank of Chosen, Bank of Taiwan, Industrial Bank of Japan.	
83. Telegraphs loan..............	Apr., 1918.	Yen 20,000,000	7½	....	Telegraph revenues.......	....	....	.....do...................	
84. Wireless loan................	Apr., 1918	Yen 5,000,000	7½	....	All wireless installations..	....	....	Mitsui Bussan Kaisha.....	
85. Kirin-Hweining Railway loan	June, 1918.	Yen 20,000,000	5	1958	Railway, and revenues thereof.	....	....	Bank of Chosen, Bank of Taiwan, Industrial Bank of Japan.	

No record of an internal Chinese loan in the imperial days is obtainable, extraordinary expenditures having been met by special taxes and assessments.

In 1911 the revolutionary government at Nanking contracted an internal loan of $6,367,640 at 8 per cent, for military purposes, which was assumed by the Republic and which has been more than half paid off. The Republic in its first year also made a "public loan" of $4,006,920, repayment of which was begun in 1916.

The first important domestic loan was that of the Third Year of the Republic, $24,000,000 at 6 per cent. This loan was originally for $16,000,000, but was oversubscribed by $8,000,000, and the authorized amount was accordingly increased. It is a general obligation of the Government.

This loan was followed by that of the Fourth Year of the Republic, $24,000,000 at 6 per cent, secured upon the Native Customs, with the management of the interest, repayment, etc., intrusted to the Inspector General of Maritime Customs. It was floated through the Hongkong & Shanghai Banking Corporation.

In 1916 was issued the internal loan of the Fifth Year of the Republic, $24,000,000 at 6 per cent, a general obligation of the Government. In 1916 also there was authorized the internal loan of the Seventh Year of the Republic, $45,000,000 at 6 per cent, in connection with the Short-Term Loan of 1918, $48,000,000 at 6 per cent.

The Short-Term Loan of 1918 is secured by the revenues of the Maritime Customs released by the postponement for five years of the Boxer Indemnity payments. It is for five years, with monthly drawings.

The Internal Loan of the Seventh Year of the Republic is for 20 years, and is secured by Native Customs revenues.

The peculiar feature of these two loans, which were opened to public subscription May 1, 1918, is that each subscriber to the short-term loan must subscribe to an equal amount of the long-term issue.

It was announced that at the first drawing of the short-term bonds, July 1, 1918, bonds amounting to $4,800,000 were drawn and redeemed.

It was understood that the proceeds of these two loans would be used to repay to the Banks of Communications and of China advances made by them to the Government amounting to about $90,000,000. It is therefore immaterial, in estimating the domestic debt of the central Government, whether the two bond issues of 1918 or the debts to the banks are included.

The above figures are in Chinese dollars.

In June, 1919, there appeared a proposed plan for the military and civil reorganization of China, as drawn up by Mr. Chu Chi Chien, a former Minister of the Interior, who headed the northern delegation to the internal peace conference at Shanghai. In his statement there was included the following table of foreign and domestic loans (including payment of principal and interest) from July 1, 1918, to June 30, 1919; it is reproduced here simply as coming from Mr. Chu Chi Chien, and neither the author of the present chapter nor the Bureau of Foreign and Domestic Commerce assumes any responsibility for the accuracy of the figures.

Designation of loans.	Amount.
FOREIGN LOANS.	*Chinese dollars.*
Anglo-German loan contracted by the late Ching Government	7,735,616
Supplementary Anglo-German loan contracted by the late Ching Government	6,681,856
Russo-French loan contracted by the late Ching Government	6,346,426
Crisp loan contracted by the central Government	2,005,000
Reorganization loan contracted by the central Government	10,025,000
Banque Industrielle loan, by the central Government	1,503,750
British Chinese Corporation loan, by the central Government	180,450
Advances by Banque Industrielle de Chine to central Government on account of Ching-Yu Railway	2,023,276
Shinya Corporation loan, by the central Government	240,000
Chicago Bank loan, by the central Government	482,400
Telegraph loan	960,000
Advances on account of Kirin-Hweining Railway	560,000
Forest loan	1,800,000
Advances for Manchurian and Mongolian Railway	640,000
Advances for Tsi-Shun-Kao-Hsu Railway	640,000
Advances of second reorganization loan	1,280,000
Payment of indemnity to Spain	8,283
Payment of indemnity to Holland	53,497
Payment of indemnity to Sweden	34,176
Payment of indemnity to Russia	5,546,395
Miscellaneous expenses in connection with payment of indemnities	9,772
Debts of Ministry of Navy to Sir Armstrong Whitworth & Co. for supply of guns, secured by Government Treasury bill	712,000
Debt of Ministry of Navy to Kawasaki Shipyard for supply of guns, secured by Government Treasury bill	206,337
Debt of Ministry of War to Mitsui Bussan Kaisha for supply of guns, secured by Government Treasury bill	668,962
Debt of Ministry of War to Taihei Komi Co. for supply of guns and munitions, secured by Government Treasury bill	468,732
Debt of Ministry of War to Russo-Asiatic Bank for payment of Lunghua Tannery, secured by Government Treasury bill	528,941
Debt of Ministry of Foreign Affairs to Syndicat du Yunnan, secured by Government Treasury bill	478,894
Debt of Ministry of Education to Russo-Asiatic Bank, secured by Government Treasury bill	135,759
Debt of Ministry of Education to Banque Industrielle de Chine	87,600
Debt of Ministry of Education to Banque Sino-Belge for advances in sterling	165,405
Debt of Ministry of Education to Yokohama Specie Bank	82,800
Debt of Ministry of Agriculture and Commerce to Banque Industrielle de Chine	137,323
Debt of Ministry of Education to Mitsui Bishi Kaisha	82,800
Debt of Ministry of Finance to Mitsui Bussan Kaisha for loan contracted by the Nanking Provisional Government	933,035
Debt of Ministry of Finance to Standard Oil Co., secured by Government Treasury bill	289,726
Debt of Ministry of Finance to Banque Sino-Belge, secured by Government Treasury bill	592,651
Debt of Ministry of Finance to Sino-Japanese Industrial Co.	1,667,200
Debt of Ministry of Finance to Lee Higginson & Co.	995,676
Debt of Ministry of Agriculture and Commerce to Samuel & Co.	34,708
Debt of Ministry of Finance to Russo-Asiatic Bank	298,700
Debt of Ministry of Finance to the Industrial Bank of Japan and Nien Bank	4,140,000
Debt of Ministry of Finance to Mitsui Bussan Kaisha	64,000
Debt of Ministry of Finance to the Exchange Bank	414,000
Debt of Ministry of Finance to the Septuple Banking Group	383,600
Debt of Ministry of Finance to the Quadruple Banking Group	849,400
Debt of Ministry of Finance to Banque Industrielle de Chine on account of Ching-Yu Railway.	3,304,995
Debt of Ministry of Finance to Banque Industrielle de Chine for interest on Pukow loan, secured by Government Treasury bill	309,602
Debt of Ministry of Finance to Banque Industrielle de Chine for advances against promissory notes issued by the Commercial Guarantee Bank of Chihli	743,765
Debt of Ministry of Finance to the Russo-Asiatic Bank for advances against promissory notes issued by the Commercial Guarantee Bank of Chihli	412,189
Debt of Ministry of Finance to Exchange Bank	960,000
Debt of Ministry of Education to the Russo-Asiatic Bank	290,000
Debt of Ministry of Navy to Ansaldo Works	240,000
Other indebtedness	1,473,909
Total foreign loans	71,001,606
DOMESTIC LOANS.	
Debt of Ministry of Finance to the Bank of Communications for handling the Lunghai Railway loan	225,000
Commercial deposits and shares of the former Ta-Ching Bank	91,424
Government Treasury bill issued to former resident-general at Altai	87,970
Government Treasury bill issued to the Far Eastern News Agency	84,800
Government Treasury bill issued to the Bank of Territorial Development	120,000
Government Treasury bill issued for construction in the President's Office	80,446
Government Treasury bill issued for advances made to the former Bureau of Merit Investigation	8,067
Debt of Ministry of War to the Transportation Bureau at military headquarters, Hankow, secured by Government Treasury bill	20,000
Debt of Ministry of War to the First Division, secured by Government Treasury bill	100,000
Debt of Ministry of War to Chang Tsung Chang, secured by Government Treasury bill	100,000

Designation of loans.	Amount.
	Chinese dollars.
Debt of Ministry of Navy to Kiangnan Dock, secured by Government Treasury bill	300,000
Debt of Ministry of Navy to Kailan Mining Co., secured by Government Treasury bill	106,766
Debt of Ministry of Navy to Kailan Mining Co., secured by Government Treasury bill	190,430
Debt of Ministry of Navy to Kiangnan Dock, secured by Government Treasury bill	127,812
Debt of Ministry of Finance to Temples in Peking and Jehol, secured by Government Treasury bill	34,568
Debt of Ministry of Finance to Mongolian princes, secured by Government Treasury bill	83,787
Redemption of 8 per cent Military Bonds	1,969,692
Redemption of Patriotic Bonds	379,308
Redemption of First Year 6 per cent Bonds	1,563,811
Redemption of Third Year Domestic Bonds	4,026,637
Redemption of Fourth Year Domestic Bonds	9,196,783
Redemption of Fifth Year Domestic Bonds	5,543,838
Redemption of Seventh Year Domestic Bonds	16,848,000
Redemption of Seventh Year 6 per cent Bonds	2,700,000
Total domestic loans	43,939,159
Grand total	114,940,765

CONCESSIONS AND TITLES IN CHINA.

By Trade Commissioner A. W. Ferrin.

INTRODUCTION.

Concessions in China have been and still are to a great extent governed by treaty and special agreements rather than by Chinese legislative or other enactment, and questions concerning them are as much diplomatic and political as they are commercial and economic. The absence of a system of laws for the granting of concessions and titles is one of the greatest obstacles to the early development of China's great resources, and one of no less seriousness is the "sphere of influence" or "sphere of interest." It is fervently hoped, and by optimists believed, that the economic future of China will eventually be brightened by the abolition of such "spheres" or at least by a pooling of international interests which will open the doors of China freely to the enterprise of all nations, on a competitive basis. In the meantime the problems of the intending investor are complicated by the provisions of a vast number of general and special treaties and of loan agreements and "understandings," the nature of the most important of which will be briefly explained in this chapter.

It is well known that China until very recently maintained toward foreign nations an attitude of exclusiveness. This attitude, indeed, has not yet been entirely abandoned. The original opening of China to foreign trade was forced, except for the early trade with Portugal, Holland, and England, which existed on sufferance, and with Russia, which was legalized by the treaty of Nerchinsk in 1689 and the supplemental treaty of 1727.

It was not until the close of the war with Great Britain in 1842 that foreign trade was properly legalized, and then only four ports, Canton, Shanghai, Ningpo, and Foochow, were formally "opened" to the residence and trade of foreigners. Two other wars, in 1858 and 1860, in which Great Britain was joined by France, were required to perpetuate and extend the rights previously granted. Since 1860, by force, negotiation, and otherwise, China has been prevailed upon to open additional ports, to the present number of 49, and to permit trading under restrictions in 33 other places. It may be well to state that a "treaty port" is not necessarily on the sea, but may be inland. At each treaty port, however, a Maritime Customs station exists, which may have branch offices in adjacent "places open to trade." In several of the treaty ports there are concessions[1] or settlements, where foreign residents have established self-government; and in all ports—in fact, everywhere in China—foreigners are governed by the laws of extraterritoriality (see p. 42) which make them civilly and criminally liable to their own consular or other courts and not to those of China.

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[1] Used in this sense, the word "concessions" means small areas within treaty ports that have been set apart for the residence of foreigners. In all of these areas the sovereignty remains with the Chinese Government, which also retains the right to a fixed land tax, usually paid by the ground owners through their consuls. The nature and permanence of the political control exercised by the foreign governments varies with the terms of the treaties by which the concessions were set apart.

"Concession" is also used in this chapter in a different sense, meaning a grant by governmental authority of the privilege or right to do something—for example, to build a railway or to undertake the operation of a public-utility enterprise.

The reader will be able to determine, from the context, the sense in which the term is employed.

CEDED AND LEASED TERRITORIES.

Distinguished from the treaty ports are ceded or leased territories, in which Chinese sovereignty has ceased or has been practically suspended. These include:

Hongkong.—Ceded to Great Britain in 1842; to it parts of Kowloon on the mainland have since been added.

Macao.—Occupied by the Portuguese since 1534, but occupation not confirmed by treaty until 1887.

Formosa.—Ceded to Japan in 1894.

Kiaochow, in Shantung.—Leased for 99 years to Germany in 1898, as indemnity for the killing of two German missionaries; held by Japan since 1914.

Port Arthur, Dairen and part of Liaotung Peninsula, in Manchuria.—Leased to Russia for 25 years in 1898 to restore the balance disturbed by the lease of Kiaochow to Germany, the lease being transferred to Japan after the Russo-Japanese war and subsequently extended by China to 99 years.

Weihaiwei.—Leased to Great Britain in 1898 "for as long a period as Port Arthur shall remain in Russian occupation," the lease being automatically extended to 99 years with the transfer and extension of the Port Arthur lease.

Kwangchow.—Leased for 99 years to France in 1900 as compensation for the leases of Port Arthur to Russia and Weihaiwei to England.

Hongkong, Macao, and Formosa are no longer Chinese territory in any sense. The four leased territories are nominally Chinese, but during the life of the leases are governed by special legislation mainly devised by the lessees, and enterprises other than those of the lessees' nationals are not particularly encouraged. At any rate, new concessions[1] in these territories must be sought from the lessees, not from China.

In the case of Kiaochow the Germans acquired the right to build a railway system as far as Tsinanfu, the capital of Shantung Province, with rights to exploit certain mines on the railway route. The Kwangchow concession to France also included railway rights. The lease of Port Arthur and Dairen to Russia included the right to extend the Chinese Eastern Railway southward to those ports. After the Russo-Japanese war this railway south of Changchun was transferred to Japan, Japan being also given the right to re-lay and operate the Mukden-Antung railway, which it had built as a war measure.

SPHERES OF INFLUENCE.

Beyond these cessions and leases are the "spheres of influence" and "spheres of interest," which in general have been created by a treaty between some power and China by which China has agreed not to alienate to a third power by cession, sale, mortgage, or otherwise, certain territories in which by implication the treaty power has been held to possess thereafter special or exclusive rights.

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[1] See footnote on p. 222. In the above sentence the word "concession" is used in the general sense, meaning the right to undertake some enterprise.

In this way Russia, by the treaties of 1892 and 1896, obtained a preferential position in Manchuria, Great Britain by the treaty of 1898 in the Yangtze Valley, Japan by the treaty of 1898 in Fukien, and France by the treaty of 1898 in parts of Yunnan, Kwangsi, and Kwangtung. In 1894 Great Britain by treaty with China, obtained some special rights on the Burmese border, and by the treaty with Russia in 1899 obtained Russia's promise to refrain from activity in the Yangtze Valley by promising not to interfere with Russia's paramountcy north of the Great Wall. After the Russo-Japanese war Japan fell heir to Russia's interests in South Manchuria, and by its occupation of Tsingtau in 1914 succeeded temporarily to Germany's rights in Shangtung, in which Japan possesses also certain special interests as the result of its exchange of notes with China in 1915. The interchange of notes between Japan and China in 1915 also gave Japan additional preferential rights in Manchuria and Inner Mongolia.

The treaties mentioned above, with many other treaties, conventions, and agreements between China and foreign powers can be found in Rockhill's "Treaties and Conventions with or Concerning China or Korea" and in the Maritime Customs report issued in 1917 as Series III, Miscellaneous No. 30. The notes exchanged between China and Japan in 1915 may be found in the appendix of Hornbeck's "Politics in the Far East."

It was against this system of economic exclusiveness that Secretary Hay's "open-door" policy was directed, the United States having maintained then and always that all nations should have equal opportunities to aid in China's development.

At present, the intending concessionaire has to take into consideration not only the complication of treaties which has created these spheres, but certain loan agreements, such as that of the Reorganization Loan of 1913, which restricts loans to China for administrative purposes to a group of banks representing certain interests in Great Britain, France, Russia, and Japan, and of the Currency Loan of 1911, which gives the same group certain prior rights. The latter loan has not been issued, but its option and privileges have been extended.

No concession can now be legally granted by China that infringes upon any of the foregoing treaties and agreements.

RAILWAY INVESTMENTS.

The form that foreign investment in China has taken in the past—aside from loans to the central Government for administrative use—has been chiefly railways. These investments may be divided into two classes—(1) railways built as concessions and operated entirely by foreigners, and (2) Chinese-owned railways built by foreign capital.

RAILWAYS BUILT AS CONCESSIONS AND OPERATED BY FOREIGNERS.

In the first class are comprised the Chinese Eastern Railway (Russia), the Shantung Railway (originally German), and the Yunnan Railway (French).

CHINESE EASTERN RAILWAY.

The Chinese Eastern Railway was begun in 1897, under a special agreement (Peking, 1896) between the Chinese Government and the Russo-Chinese (now the Russo-Asiatic) Bank, which agreement, while nominally making the railway a Russo-Chinese institution, made it practically a Russian enterprise, operated and controlled by the Russian Government, with the right to police the line, etc. This road, which began as a trans-Manchurian link in the Trans-Siberian Railway, was subsequently extended to Port Arthur and Talienwan (Dalny, or Dairen). After the Russo-Japanese war the rights of Russia in this line below Changchun were transferred to Japan, and the Japanese were given the right to re-lay and operate the light railway that they had built during the war between Mukden and Antung, on the Korean border. The railway from Changchun to Port Arthur and Dairen and from Mukden to Antung is now the South Manchuria Railway (entirely controlled by Japan), with which the railways of Korea have been recently amalgamated (Aug. 1, 1917). The lease of the South Manchuria Railway to Japan has been extended to 2007. It is now essentially a Japanese, not a Chinese, railway, though running through what is nominally Chinese territory. The railway across northern Manchuria and southward from Harbin to Changchun is still governed by the Russo-Chinese convention of 1896, et seq. The lease expires in 1980, when the road, according to the agreement of 1896, should pass to China. China, by the same agreement, has the right to buy in the road at cost and interest in 1936.

SHANTUNG RAILWAY.

The Shantung Railway was begun in 1898 under a railway convention concluded at the same time as the signing of the Kiaochow lease. It gave Germany the right to construct and operate a triangular system of railways in Shantung Province, of which only the Tsingtau-Tsinanfu line was actually built. The agreement stipulated that Chinese could invest in the railway company, which was also given the right to exploit certain mines along the railway route (for 9 miles on each side of the line). Little Chinese investment was made, and the railway was practically constructed and financed by German capital and was operated by Germans until 1914, when Tsingtau and the railway were captured by Japan. The railway is now operated by the Japanese. The Shantung provincial government has the right to buy back the line in 1924 by paying four-fifths of the cost of the road.

YUNNAN RAILWAY.

The Yunnan Railway was begun in 1898 under an agreement that gave France, or a company designated by France, the right to construct an extension of the Haiphong-Laokai Railway in Tongking across the Chinese border to Yunnanfu, the capital of Yunnan Province, and to operate the line as a whole from Haiphong to Yunnanfu. The line was constructed entirely by French capital without guaranty from the Chinese Government. The duration of the concession is 80 years, at the end of which time the railway is to revert to China.

It is most unlikely that China will ever again grant concessions similar to those under which the Chinese Eastern, Shantung, and Yunnan Railways were constructed, and the agreements for these roads are hardly useful as precedents for future foreign investment.

CHINESE-OWNED RAILWAYS BUILT BY FOREIGN CAPITAL.

PEKING-MUKDEN RAILWAY.

The principal lines of the Chinese Government Railways were built by foreign capital. The first of these was what is now the Peking-Mukden line, which was begun with Chinese capital, aided by loans from the Hongkong & Shanghai Banking Corporation, the Russo-Asiatic Bank, and the Deutsch-Asiatische Bank. These loans were funded in 1898 by a loan of 16,000,000 taels floated through the British & Chinese Corporation, a syndicate formed by the Hongkong & Shanghai Banking Corporation and Jardine, Matheson & Co. for the promotion of British interests in China. The loan was large enough to cover extension of the line to Shanhaikwan and to Peking, and to build branches.

The loan agreement, which has served as a model for some later loan agreements, made the loan a first lien on the entire property, which was to revert to the lenders if the loan remained unpaid when due (in 45 years); it forbade the contracting of any further loan except through the British & Chinese Corporation; called for the use of British materials; provided for a British engineer in chief with practical control of all affairs, and for a European accountant with full power to organize and direct the keeping of railway accounts.

SHANGHAI-NANKING RAILWAY.

In May, 1898, a similar agreement was made between the Chinese Imperial Railway Administration and the British & Chinese Corporation for a loan of £3,250,000 for the construction of the Shanghai-Nanking Railway. This agreement was somewhat more detailed than the Peking-Mukden (or Imperial Railways of North China) agreement and some minor additions were made, including the creation of a board of commissioners for surveying the construction and operation of the railway and the provision that a 5 per cent commission be paid to the syndicate on all purchases.

CANTON-KOWLOON RAILWAY.

The preliminaries of the Canton-Kowloon loan were begun in 1898, but the final agreement was not signed until 1907. The terms were similar to those of the Shanghai-Nanking agreement, except that, instead of 5 per cent commission on materials purchased, a lump sum of £35,000 was paid for all services rendered in connection with the construction and equipment of the road.

PEKING SYNDICATE LINE.

In the same year agreements were signed between the provincial authorities of Shansi, a Honan mining company, and the Peking Syndicate, a British concern, for the working of coal and iron mines in those Provinces and the building of railways to connect with a main line or with river navigation, these agreements being ratified by the central Government. These agreements, which were somewhat ambiguously worded, were interpreted by the Peking Syndicate as entitling it to build railways generally, at its discretion, and it proceeded to make surveys that brought it into conflict with another British syndicate. The controversy was compromised by a combination of the two companies and an agreement for equal participation in all future railway developments north of the Yangtze. Under these foregoing agreements the Tao-Ching Railway was built. This road was later purchased by the Chinese Government, but continues to be operated and controlled by the Peking Syndicate, pending the redemption of the 5 per cent bonds that were issued to pay for the road.

PEKING-HANKOW RAILWAY.

Again in 1898, which was the great year of railway expansion in China, agreements were signed by the Chinese Railway Co. (a government institution) and the Société d'Etude de Chemins de Fer en Chine (French, Belgian, Russian) for a loan of 112,500,000 francs for the construction of the Peking-Hankow Railway. The agreements differed from the North China Railway agreement in that the net revenues of the line and the gross revenues of the Chinese Government were pledged as security, not the line itself. The agreements provided that the syndicate had the right to direct the construction of the line and to name a foreign chief engineer and staff. It also provided for the purchase of all materials, except those that could be supplied by the Hanyang Iron & Steel Works, from the Franco-Belgian-Russian syndicate, a commission of 5 per cent to be paid to the syndicate on all purchases. The syndicate was given, under an operating contract, full control over the operation of the road and a right to 20 per cent of the net profits after the payment of all expenses and bond interest. The Chinese Government was given the right to redeem the loan and take over the railway in 1907. It exercised this option in 1908, issuing a new loan to raise the necessary money, and on January 1, 1909, the Peking-Hankow line was taken over and the syndicate's interest in it ceased. A large number of officials were retained, however, and a strong element of French and Belgians continues in the operating departments of the line, which is still known colloquially as the French Railway. Most of the railway signs and notices on cars, stations, etc., are printed in French, and many of the Chinese officials, even down to conductors, speak French.

Similar agreements controlled the construction of the Pienlo and Cheng-Tai branches of the Peking-Hankow line, which were constructed by the Franco-Belgian syndicate. Both branches are now owned by the Chinese Government.

TIENTSIN-PUKOW RAILWAY.

The Tientsin-Pukow Railway was constructed jointly by Great Britain and Germany, under a loan agreement finally signed in 1908. The English built the southern section, 401 miles, and the Germans the northern section, 235 miles. This agreement was more liberal to China than either the North China or the Peking-Hankow contract.

The control of the road remained entirely in the hands of the Chinese Government, both during construction and afterwards, and the road itself was not mortgaged, the security for the loan being various provincial taxes. The Chinese agreed, however, to the selection of English and German engineers, subordinate to the Chinese managing directors of the two sections, and foreign supervision of the accounts was provided for. Materials were supposed to be bought in the open market, and in fact many contracts were awarded to American and continental manufacturers in competition with British and German firms.

HUKUANG LOAN.

The so-called Hukuang Loan, for the construction of the Hankow-Canton and Hankow-Szechwan Railways, was the culmination of a long conflict between the capitalists of various nations, and represented a compromise by which the concession was granted to a Four Power Group, which included bankers of the United States. The loan agreement was finally signed in 1911. It vested the construction and control of the railways entirely in the Chinese Government but provided that the Government should appoint a British chief engineer for the Hupeh-Hunan section of the Canton-Hankow line, a German engineer for the Kwangshui-Ichang section of the Hankow-Szechwan line, and an American engineer for the Ichang-Kweichowfu section of the Hankow-Szechwan line. Supervision of the expenditures and control of loan funds were stipulated in terms similar to those of the Tientsin-Pukow agreement, with foreign auditors. The railways were not mortgaged, the security for the loan being revenues of the Provinces through which they were to pass. Purchase of materials was to be made "on the terms most advantageous to the railways." Work on the Hankow-Szechwan section has been suspended on account of revolutionary troubles, and the American chief engineer has been transferred to the Canton-Hankow line, on which construction is continuing as rapidly as disturbed local conditions will permit.

TERMS OF RECENT AGREEMENTS.

The terms of the last-named concessions, far more liberal to China than those of the Peking-Mukden and Peking-Hankow agreements, are being generally followed in recent railway concessions, and have even been improved, from the Chinese standpoint, by the Shasi-Shingyifu agreement, which introduced the "percentage contract construction system." According to this system, a contract is made by the Government with an experienced contracting firm or firms of high financial standing, providing that a certain percentage of profit shall be allowed by the Government to the contractor over the actual cost of construction and equipment and that the Government is to supervise the entire work during and after construction.

It is on this plan that an American engineering firm (Siems-Carey) is now preparing to build the Chinchow-Chuchow and other lines in southwestern China.

SITUATION IN MANCHURIA.

The railways of Manchuria fall into a somewhat different category, because of Japan's special position in that Province. New Manchurian railways, built or planned, are ordinarily feeders to the South

Manchuria Railway, and the agreements provide that the new roads shall be operated under rather strict Japanese supervision, and also that they shall pass to Japan in the event of failure to pay off the loans when due—a feature that has been dropped from loan agreements in other parts of China, where the continued Chinese ownership of the roads under all conditions is guaranteed or provided for.

SUMMARY OF CONDITIONS AND PROSPECTS.

China has now about 6,500 miles of railway completed and in operation—most of it under Government ownership—and 2,300 miles of railway "under construction," work being to a considerable extent suspended at the present time (August, 1918) as a result of untoward events in the world at large as well as in China. Some 14,000 miles more of railway work has been conceded, so that the main arteries of rail transportation are provided for. Many of the existing but as yet unworked concessions are in the hands of interests that may not be able to develop them in anything like the immediate future after the war (Belgian interests, for example), while some are in the hands of Teutonic interests and are thus exposed to cancellation. It would seem, therefore, that the best present field for American investment in Chinese railway construction would be that of concessions already granted but unworked, which might be acquired by purchase or by regrant from the Chinese Government. It is highly desirable from every standpoint that China's railway program should be carried to completion as soon as possible, to open up endless opportunities for mining, industrial, and other enterprises in sections now practically inaccessible.

EMINENT DOMAIN.

The procedure for obtaining rights of way is simple. In preparation for a new Government railway, a director general is appointed by the President of China, and he is empowered through his subordinates to appraise the value of property through which the line is to run and to compel the owner to sell (or transfer his lease) at the appraised price. No policy has been settled upon as to the delegation of this right to concessionaires, but it was given to the Chinese Eastern and South Manchuria Railway Companies. It is not likely that such concessions will be granted in the future, as the tendency is to make all Chinese railways national, except, perhaps, for railways in Japan's various spheres of influence, particularly in Manchuria, in which case the Japanese authorities will probably be granted the same rights of eminent domain as now pertain to the Chinese Government.

AVAILABLE TEXTS OF RAILWAY AGREEMENTS.

Most of China's railway agreements that are not inaccessible are contained in a compilation made by the Ministry of Communications. Several of them may also be found in Rockhill's "Treaties" and in the collection of treaties and agreements published by the Maritime Customs Administration and previously referred to. Mr. J. V. A. MacMurray, chargé d'affaires of the American Legation, Peking, has made the most complete collection of treaties and agreements, which is now in the hands of the Carnegie Foundation for publication.

The complete texts of the Chinese Eastern, Peking-Hankow, Peking-Newchwang, Canton-Kowloon, Tientsin-Pukow, Pauling & Co., Hukuang, and Ssupingkai-Chengchiatun agreements are published as appendixes in a monograph recently issued by the Bureau of Foreign and Domestic Commerce—" Far Eastern Markets for Railway Materials, Equipment and Supplies," Special Agents Series No. 180, by Trade Commissioner Frank Rhea, which may be obtained for 35 cents from the district offices of the Bureau or from the Superintendent of Documents, Government Printing Office, Washington, D. C. This book, which contains 339 pages and 46 halftone illustrations, discusses the Chinese railway situation in much detail.

MINING ENTERPRISES.

In considering mining as well as other enterprises in China, it must be borne in mind that all land has always been considered the property of the Emperor and now of the Republic, and that even Chinese citizens can not own it. They can, however, lease land in perpetuity, and this privilege is extended to foreign residents in the treaty ports. In " places open to trade " foreigners can lease land for a term of years, and these leases can generally be readily renewed. But in what is legally known as " the interior " (territory other than places open to trade) foreigners (except missionaries) have practically no property rights at all, except in the rare instances where such rights have been conferred by special concession.

Under the mining regulations promulgated by the Chinese Republic in 1914, mining rights are reserved to Chinese subjects and to " subjects of treaty nations . . . when doing joint business with subjects of Chung Hua Min Kuo (the Chinese Republic)," and it is further provided that " foreigners will not be allowed to hold more than half of the total number of shares of the mining concern." A copy of the mining regulations of 1914 is appended to this chapter (see p. 234).

Since 1914, by ministerial decree, iron mines have been specifically withdrawn from under the regulations, and a law has recently been framed by the Ministry of Agriculture and Commerce that restricts investments in iron-mining companies to Chinese subjects. This law has not been passed by Parliament, which has not been in session, and it has not been accepted by the diplomatic body. It is being bitterly opposed by one foreign nation.

Prior to the promulgation of the regulations of 1914 a successful foreign form of investment in mining was the making of contracts with Chinese mining companies for the exclusive output of mines, or the exclusive selling agency of the output. This gave the foreign investor virtual control of the mine, and usually resulted in the sale by the foreign contractor to the company of foreign mine machinery. This plan was adopted by the Japanese interests in the Han-Yeh-Ping Co. which in return for large loans to the company are entitled to a minimum amount of iron and steel annually, the minimum being at present more than the capacity of the works. The same policy has been followed in other instances, apparently with satisfactory results.

There seems to be no reason why joint working of Chinese mines, as provided for in the 1914 regulations, should not be successful, with foreign supervision, especially of accounts.

The largest foreign mining interests in China, aside from the Fushun collieries in Manchuria (controlled by the South Manchuria Railway under special lease) and the Japanese interests in the Han-Yeh-Ping Co., are those of the Peking Syndicate and the Kailan Mining Administration, in which British influence predominates.

The Peking Syndicate, which mines coal and operates railways, received its original mining concessions from the Shansi Board of Trade and the Yu-feng Co., in Honan, both concessions being ratified by the central (then Imperial) Government. In 1915 a new, Anglo-Chinese, corporation was formed, the Fu Chung Corporation, to take over all the coal produced by the Peking Syndicate and by the Chung Yuan Mining Co., which embraced a number of native companies, and the new corporation was authorized to operate in areas outside those operated by the Peking Syndicate and the Chung Yuan Co. The selling end of the Peking Syndicate has thus become a joint English-Chinese enterprise, to which Chinese and English have contributed capital in equal amounts, as provided for by the regulations of 1914.

The Kailan Mining Administration, the largest coal producer in China, is also a Sino-British enterprise, being a combination of the Chinese Engineering & Mining Co. (British) and the Lanchow Coal Mining Co. (Chinese). The British part of the combination, before the consolidation, had been meeting with constant official opposition, which was eliminated by the merger. It might be well to mention that the British concession was originally granted to Chinese subjects and by them transferred to British interests during the Boxer insurrection.

The Mentowkow coal mines are also operated by an Anglo-Chinese company.

The Chinlingchen Iron Mine in Shantung was operated in connection with the Hengshan colliery by a German company, which acquired this right as a by-product of the Kiaochow lease of 1898. It is now being operated by the Japanese.

Several other mines have been operated by Sino-German companies, the German portions of which have been or are being taken over by the Chinese Government.

Sino-Japanese companies have been and are being formed in various places in China for the mining of various minerals, particularly iron and coal. Several of the mines thus about to be worked are located in Chihli Province, not far from Peking. The exchange of notes of 1915 between Japan and China, it might well be added here, gave Japan prior rights in prospecting for and operating mines in South Manchuria.

INDUSTRIAL INVESTMENTS.

Under the above rather vague heading are included manufacturing establishments, trading companies, public-service companies, and " development " works of all kinds.

In the treaty ports having foreign concessions[1], such as Hankow, Tientsin, Canton, etc., such enterprises as these can be authorized by the foreign authorities, as the concessions are self-governing or governed by the laws of their home countries. In Shanghai the International Settlement is administered by a municipal council, to which foreign (non-Chinese) representatives are elected at an annual ratepayers' meeting, and this council can grant franchises just as any English or American city can. Also here, and in all treaty ports, foreign companies can lease in perpetuity land in designated sections and can carry on commercial or industrial activities with about as much freedom as in America, if not with greater freedom.

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[1] See footnote on p. 222.

Outside the treaty ports, concessions must be obtained from the Chinese, and this is a matter of diplomacy. Generally speaking, concessions must be obtained from the central Government or, if from a provincial government, must be ratified by Peking. The granting of concessions by provincial or district authorities may increase, but the careful concessionaire will still have his concession indorsed by the central Government. It is advisable, however, to work from the Province up rather than from Peking down, for the spirit of local pride is very strong in China and more than one concession granted by Peking has been of no avail, because of local opposition that might have been avoided had the matter been taken up locally first.

The Banque Industrielle de Chine loan of 1913 is a precedent for industrial loans and concessions, and the agreement for this loan, which is published in full in the Far Eastern Review for May, 1918, should be studied with care.

That agreement provided for a loan of 150,000,000 francs, for the purpose of building harbor works, wharves, warehouses, etc., at Pukow, the southern terminus (on the Yangtze River) of the Tientsin-Pukow Railway, and for municipal works in the city of Peking—tramways, waterworks, electric lights, etc. The loan was for 50 years, with amortization beginning at the end of the sixteenth year, and is secured by the Port of Pukow, the municipal works to be built in Peking, the alcohol tax north of the Yangtze, the municipal revenues of Peking (excluding "octroi"), and the general revenues of the Chinese Government.

The Port of Pukow was built with the proceeds of this loan, but the proposed municipal undertakings in Peking were not—partly because of controversies between the Chinese Government, the Banque Industrielle, and several Chinese companies that claimed to own franchises or monopolies for several of the things which the loan agreement promised to the Banque, and partly because of the diversion of funds to general purposes of the Government.

The Banque Industrielle maintains that its concessions still hold good, and has recently successfully opposed a movement to grant to another party the tramway concession in Peking. The Banque Industrielle, which is nominally a Sino-French institution but is predominantly French, has always taken the lead in the matter of investing in industrial (or what in America are called municipal) enterprises, and is now lending considerable money to the Ministry of Communications for the building of macadamized roads in North China, with the credit of the Government as the sole security.

Since the outbreak of the European war little or no western capital has been available for investment in China, and the Chosen-Taiwan-Industrial group of Japanese banks has taken the leadership in industrial loans in China, receiving in return valuable concessions, of which the most important so far is the exploitation by a Sino-Japanese company under Japanese supervision of the vast and immensely valuable forests of the Provinces of Kirin and Heilungkiang, in northern Manchuria. The exploitation of mines also is involved in the so-called Kirin forestry loan.

The terms of the later loans are not so liberal toward China as were those of the Tientsin-Pukow and following railway loans up to 1914. A greater degree of outside control is now insisted upon, and in the case of the latest Kirin-Changchun railway loan agreement, at least, and the agreement for the Kirin-Hweining line, the railway itself is mortgaged and becomes the property of the lender if the loan is not repaid when due. It will be remembered that in the Tientsin-Pukow agreement, and in that for the Peking-Hankow line also, the revenues of the road were pledged, but not the road itself.

In some of the later loan agreements, notably the Bureau of Engraving and Printing loan and the telegraph loan, provision is made that materials shall be bought from the lender or concessionaire in preference to the open market.

CONCLUSIONS AND RECOMMENDATIONS.

Summing up the present situation, it is safe to say that the best way to enter the Chinese railway, industrial, or economic investment field is through cooperation with Chinese capital, since Chinese subjects can usually secure better terms from the governments, both local and central, than can European or American entrepreneurs, and can work more easily with the authorities after the enterprise has been started. There is much capital in China that would welcome the opportunity to cooperate with American capital, and that would submit to a great degree of American control and supervision. The United States at present is regarded with great favor by the Chinese, because of its altruistic attitude in the past and the feeling that an American invests his funds or seeks concessions in China primarily for the purpose of making money (in which profits the Chinese would be glad to share equitably) and not for the purpose of acquiring political or territorial advantages.

It should be easy to obtain, with Chinese cooperation, the right to operate public utilities in the large cities of China, whether open or closed. Many going concerns stand ready to take in American partners, in order to obtain capital for expansion.

For example, one large city has a very successful and profitable waterworks, the concession for which was originally granted to a Chinese but which has been transferred to a company in which both American and British capital is interested. Other cities seem ready for a similar enterprise. It appears to the writer feasible even to operate a series of public utilities on the familiar American "holding-company" plan by establishing the main company in a treaty port and working in the interior through Chinese companies controlled through stock ownership, through loans or otherwise.

As to the effect of past concessions on the grantor, it can not be said that it has been detrimental, even where the terms have been rigorous, for China needs all modern improvements so badly that it can afford to pay a high price for them. The evils of concessions in China lie not in the concessions themselves but in the circumstances attendant upon the competition for them. It is probable that the development of China after the war will be less marked by such proceedings than formerly, and already leading foreign bankers and other foreigners of influence in China are discussing plans for cooperating with each other and with the Chinese in a manner that would have been impossible four years ago.

TEXT OF REGULATIONS GOVERNING MINING ENTERPRISES.

Following is a translation (from the Peking Gazette) of the mining-enterprise regulations published by the Chinese Government on March 11, 1914:

CHAPTER I. GENERAL RULES.

ARTICLE 1. Mining enterprise includes prospecting, actual mining, and other business connected with them.

ART. 2. Mining rights are rights to prospect and operate mines.

ART. 3. Subjects of Chung Hua Min Kuo (China) or persons who have become subjects of Chung Hua Min Kuo by proper process of law may secure mining rights.

ART. 4. Subjects of treaty nations may secure mining rights when doing joint business with subjects of Chung Hua Min Kuo (China). But in such cases they must be subject to these regulations as well as other laws connected with them.

Foreigners will not be allowed to hold more than half of the total number of shares of the mining concern.

With regard to the foreign subjects mentioned first in this article (unnaturalized foreign subjects) they shall be required to present to the Minister of Agriculture and Commerce or the Director of Mining Supervision Office a certificate issued by their own diplomatic officer or consul proving that they are willing to be subject to these regulations and other laws connected with them.

ART. 5. When two or more persons join in a mining business or petition to start a mining business, they should choose one as representative, and notify the Director of the Mining Supervision Office of their respective district; failing to do this the director shall appoint one of them according to his own decision, to act in that capacity.

The persons who join in a mining business or petition to start a mining business as stated above shall be considered as persons who have entered into partnership under contract or agreement.

ART. 6. The following are minerals in their respective classes:

Class 1.—Gold, silver, copper, iron, tin, lead, antimony, nickel, cobalt, manganese, zinc, aluminum, arsenic, molybdenum, bismuth, platinum, iridium, barium, chromium, uranium, various kinds of coal, diamonds, and various kinds of precious stones.

Class 2.—Crystal, asbestos, jade stone, diamonds, gypsum, phosphate of lime, barite sulphur, pumice stone, marble, slates, talc, graphite, amber pitch, china earth, etc.

Class 3.—Limestones, sandstones, granites, marbles, white marble, earthy lime, dolomite, clay, fire clay, etc.

Other kinds of stone quarried for building or other useful purposes.

Salt and kerosene oil shall be exploited only by the Government, and therefore will not be included in the above three classes.

ART. 7. For minerals not specified in the above tables the Minister of Agriculture and Commerce may classify them according to his judgment from time to time.

ART. 8. With regard to the minerals specified in article 6 (including waste mines and extracted ores), unless permission has been obtained from the Government none shall be allowed to make investigation or start operation. But this does not include the various mineral resources which are owned by the public.

ART. 9. With regard to the minerals specified in article 6, class 1, the party which petitioned first for the right shall be given the first privilege to secure the mining rights regardless whether he be owner or non-owner of the surface land property.

ART. 10. With regard to the minerals specified in article 6, class 2, the owner of the surface land property shall have the first right to secure the mining rights. But in cases where the owner declares that he does not wish to secure the mining right or when the party having registered fails to work the mine within a year, the Minister of Agriculture and Commerce or the Director of Mining Supervision Office may sanction others in securing such mining rights.

ART. 11. With regard to the minerals specified in article 6, class 3, they shall be exploited by the owner of the surface land property or leased by him to others to exploit, but in each case it shall be reported to the local superior administrative official, and secure his approval.

The local superior administrative officials, when approving such requests, should notify the Director of Mining Supervision Office.

CHAPTER II. MINING AREAS.

ART. 12. Mining area is an area of land within which the possessor of mining right has secured the sanction of the Government to prospect or work the mines.

ART. 13. Land coming under the following heads shall not be given as mining areas:

1. Land within one li from the boundaries of the buildings or tombs of ancient sages and emperors or kings.
2. Land which is in close connection with fortifications, military strategic points, naval bases and areas of importance to the offices and factories of war supplies, as well as other areas not sanctioned by the officials governing the place.
3. Areas within one li from the territories of commercial ports or trading markets, without permission from the governing officials.
4. Areas within 400 feet from the sites of official or public buildings, parks, famous ancient monuments, public roads, railways or water supplies and water ways, without permission from the governing official, owner, or people who are responsible for such properties.

ART. 14. Mining areas shall be marked with straight lines. The space under ground within the area of the mining right shall be bounded by vertical plans dropped from the surface boundary lines.

ART. 15. The surface area of the mining areas shall be reckoned by square li or mow. Sixty square chang make a mow, and 540 mow make a square li (a chang is 10 Chinese feet).

ART. 16. A coal mine area shall have a surface between 70 mow and 10 square li. Other mines between 50 mow and 5 square li.

With regard to the above rules the Minister of Agriculture and Commerce may increase or decrease when he deems it necessary under special conditions.

ART. 17. Not more than two different rights shall be established within a single mining area except when the rights are for minerals of different nature or under circumstances stated in article 35.

ART. 18. In case tunnels are opened outside of the mining area for the purpose of draining off water, ventilation, or transportation, it shall not be considered as overstepping the mining area provided permission has been secured from the Director of Mining Supervision Office of that district.

When in the course of making a tunnel mineral ore is discovered, the Director of Mining Supervision Office should be notified at once.

Upon receiving the above information the Director of Mining Supervision Office, if he is satisfied that such minerals are worth exploiting, may set a time limit and compel the owner of the tunnel to take it into his mining area.

CHAPTER III. MINING RIGHTS.

ART. 19. Mining rights shall be considered as rights of possession, and are subject to the laws governing unmovable properties; but when one possesses rights of possession other than mining rights in the same mining area, the rights of possession of other properties shall still exist.

ART. 20. Mining rights may not be surrendered to others in part.

ART. 21. With regard to the following cases petitions should be sent to the office of the Director of the Mining Affairs for registration. However, when the right to mining enterprise has been restricted, no petition requesting the cancellation of the right will be entertained.

ART. 22. The facts should be registered at the Mining Supervision Office when the following conditions arise; but when the mining right is under restriction (of obligation) no registration for business failure will be allowed—

1. When the validity of the mining right is changed, transferred, canceled, or restricted.

2. When the mining right is pledged as security, but the validity of such pledge is changed, transferred, canceled, or restricted.

3. When the partner withdraws from the business.

ART. 23. Rules relating to the registration provided in the previous article shall be fixed separately by order of law.

ART. 24. With regard to the registration mentioned in the article 22, no case shall be considered valid until it has been registered; but this will not include cases pertaining to legacy of mining rights, expiration of mining rights and sale by auction as provided in these regulations.

ART. 25. Those who wish to prospect for mines shall first secure the sanction of the Director of the Mining Supervision Office by presenting him with a request together with drawings and explanations. The director may, when he deems it necessary, instruct the local officials or send special deputies to investigate into the case or make personal inspections.

ART. 26. The time limit for prospecting shall be limited to two years.

ART. 27. Minerals secured when prospecting shall not be sold or used until the Director of Mining Supervision Office has approved of it and taxes have been paid in accordance with the rules of these regulations.

ART. 28. Those who wish to operate a mine shall first submit a petition together with drawings and explanations to the Director of Mining Supervision Office, who shall again petition the Minister of Agriculture and Commerce, and then register same; but the Minister of Agriculture and Commerce may, when he deems it necessary, order the director or send some special deputies to investigate into the case or make inspections in person.

In accordance with the previous article the Director of the Mining Supervision Office may instruct the local officials to investigate or make personal inspections.

ART. 29. The man who petitions for the management of the mine may alter his name, etc. But at the time of investigation and at the time of operation, unless he petitions the Director of the Mining Supervision Office and the Minister of Agriculture and Commerce, respectively, it will have no effect.

ART. 30. The petitioner for the operation of a mine should prove that the area for which he applies does contain the mineral he wants to operate.

ART. 31. If the petitioner does not submit a sufficiently complete plan and description, the Director of the Mining Supervision Office or the Minister of Agriculture and Commerce may set a date demanding correction, or the submission of another petition. Should there be no correction or new petition forthcoming within the fixed period, the petition will be rejected.

ART. 32. If the Minister of Agriculture and Commerce or Director of the Mining Supervision Office should consider the place which has been petitioned for investigation suitable for mining operations, he may set a date asking the petitioner to petition for the right to operation and if, after the lapse of the period, no such petition be submitted the petition of others may be considered.

Should the Minister of Agriculture and Commerce consider that the place for which a petition has been received asking for the right to operation, needs further investigation, the above provision should be followed.

ART. 33. Should the situation and condition of the area petitioned for operation be not in accordance with the real situation and condition of the bed of the mine, injuring the interests of the mine, the Minister of Agriculture and Commerce may set a period demanding that a petition be sent for correction. If, after the lapse of the fixed period, no petition is received for its correction the petition will be rejected. However, the petitioner may also ask for correction.

ART. 34. Should the Minister of Agriculture and Commerce and the Director of the Mining Supervision Office consider that the area applied for for mining enterprises would injure the public interest or not be worth while for such enterprises, no permission will be given.

ART. 35. If, on account of the situation and circumstances of the bed of the mine it be necessary to dig through to another adjacent mining area, a consultation should be made with the neighbor, to obtain a certificate allowing such acts and a petition should be sent to the Minister of Agriculture and Commerce through the Director of the Mining Supervision Office to alter the mining area.

If it be not for the above reasons that it be desired to dig through to the adjacent mining area, besides obtaining written permission from the neighboring proprietor of the mining enterprise, the permission of the mortgagee, if there be any, should also be obtained, and submitted by a petition.

ART. 36. If the area applied for for investigation be similar to the area which has already been obtained by others, the petition for the similar area should be rejected, if the mineral be also similar.

ART. 37. If the area applied for for operation be similar to the area which has already been obtained by others, a petition for the similar area should be rejected, if the mineral be also similar. But this does not apply to the case as stated in article 35.

ART. 38. If the area applied for for operation be similar to the area which has already been obtained by others for investigation, article 32, clause 1, shall apply if the mineral of the mine be the same.

ART. 39. If the area applied for for mining enterprise be the same area which has been obtained by others the Director of the Mining Supervision Office shall give information to the latter if the mineral stated in the application be not similar to that of the latter, but this does not include the case when injury would be done to the mining enterprise of others.

Within 60 days of the above information the proprietor of the mining enterprise may have preference to the right of the new mining enterprise.

The above two clauses shall not apply to the case as stated in article 35.

ART. 40. If the area applied for for investigation or for operation be similar to that which has been applied for for investigation or operation by others, the one who sent in his petition first shall obtain the right. If both persons should send in their petitions at the same time, the Director of the Mining Supervision Office shall set a period instructing the petitioners to hold a consultation between themselves and then submit their petitions again.

If no petition be forthcoming within the set period, the right should be settled by casting lots.

The above provision made in the first clause shall not apply to cases specified in articles 33, 35, and 39.

If the area applied for for investigation be similar to that which has been applied for for operation, and the ore be the same the latter application shall have the preference if their petitions be sent at the same time.

ART. 41. Within 30 days before the period for investigation has expired, the person who has the right of investigation shall have preference over others with regard to an application for mining similar mineral.

With regard to the application for the right to mining enterprise in the above area by others if the minerals applied for by others be not similar, article 39 shall apply. But if application be made in accordance with the above provision he shall obtain the right for the mining enterprise.

ART. 42. Should the man who applied for the right of investigation now apply for operation of the same mine, and should there be similar applications from others, the date when he forwarded the application for investigation shall be considered as the date he sent in his application for operation. But this does not include the case provided for in article 40, clause 4.

The above shall also apply to the case when the applicant for the operation of a mine shall change his application to that of investigation.

The provision contained in the two above clauses shall not apply to the case when the period fixed has lapsed as stated in articles 32 and 33, clause 1.

ART. 43. In case of an increase or decrease, the amalgamation or division, or any other alteration in the area of investigation a petition shall be addresed to the Director of the Mining Supervision Office for sanction and registration. If the changes be made in the area of operation a petition should be forwarded to the Minister of Agriculture and Commerce through the Director of the Mining Supervision Office for approval and registration in the office before it can have legal effect.

ART. 44. The operator of the mining enterprise should from time to time report the plan and description of the work to the Director of the Mining Supervision Office for investigation and decision.

The operator of the mining enterprise shall operate the mines according to the plan and description passed by the Director of the Mining Supervision Office.

With regard to the plan and description of the above, no change should be made without the approval of the Director of the Mining Supervision Office.

Art. 45. The proprietor of the mining enterprise shall provide a detailed plan of the mine within a book kept for the mining enterprise, which shall be kept in the office of the mining enterprise. A duplicate copy of each shall be submitted to the Mining Supervision Office.

The form for the above plan and book shall be fixed by the order of the Ministry of Agriculture and Commerce.

Art. 46. For any of the following causes the right of the proprietorship to the mining enterprise shall be canceled:

(1) If, after being registered for one year, no operations have begun without any reasonable cause, or in the course of operations a suspension has been made for one year or more.

(2) If the mining enterprise injures the public interest.

(3) If no compliance has been made with the order of the police, who, according to the mining police regulations, have instructed that some precautions should be made to avoid disasters or that a temporary suspension should be made.

(4) When the plans and descriptions given are not followed.

(5) When no mining tax is paid when due.

(6) When saction has been given for operations by mistake.

Art. 47. The following rules should be observed when the proprietor of the mining enterprise pledges his right as security for loans:

(1) When the right to a mining enterprise is pledged as security for a loan it will have no legal effect if a petition has not been sent to the Minister of Agriculture and Commerce for approval.

(2) After the right to mining enterprise is pledged should the proprietor wish to divide or amalgamate or decrease or increase the area of the mine the approval of the lender should be obtained, or a decision should be made among various lenders.

(3) When the right of the mining enterprise is canceled or has lapsed, the Director of the Mining Supervision Office after the registration shall inform the lenders to whom the right is pledged. Within 30 days after the receipt of the information the lenders may petition the Director of the Mining Supervision Office requesting an auction of the mining enterprise. But this does not apply to the case when the right to mining enterprise has been canceled in accordance with the provisions made in the second and sixth clauses of article 46.

(4) Within the time when it is on sale or during the process of auction, the right which has been withdrawn may still be considered as existing.

(5) After deducting the fees to the auctioneers and repayment of debts, the balance of the sale shall be handed to the proprietor of the mining enterprise.

(6) The right to a mining enterprise bought by the new proprietor according to the provisions made in article 3 or article 4, shall be considered as having been obtained from the time when the cancellation was registered.

Art. 48. When the proprietor of a mining enterprise stops the enterprise on his own accord, the provisions in fourth, fifth, and sixth clauses of the previous article should be followed.

Art. 49. When a petition is received applying for investigation or operation, if it be necessary that officials should be appointed to proceed to the place for investigation, the expenses of the officials thus sent shall be defrayed by the petitioner.

Art. 50. In case the neighboring proprietor of a mining enterprise or other person concerned should find that there is something which needs investigation. he may petition the Director of the Mining Supervision Office requesting that officials be appointed to make investigation. But he must bear all necessary expenses.

CHAPTER IV. LAND USED FOR MINING PURPOSES.

Art. 51. The words "person concerned" used in this law refer to the person who has right to the land used for mining purposes.

Art. 52. The "indemnity money" referred to in this law refers to the price and rent of the land, and also refers to the compensation for the ordinary loss incurred by the landlord and the person concerned.

Art. 53. In case there is necessity for the petitioner of the right to mining enterprise, or the proprietor of the right to mining enterprise, to make a survey or investigation in other men's property, he may do so with the approval of the Director of the Mining Supervision Office.

After the above approval is obtained, previous notice should be given to the landlord or the person who has the right to the land, before entering it.

ART. 54. In a case where it is necessary to remove obstacles from the place so that a proper survey or investigation may be made, it must be done with the approval of the Director of the Mining Supervision Office.

After the above approval is obtained, previous notice should be given to the landlord or the person who has right to the land, before the work of removal can be started.

ART. 55. In order to prevent impending danger the proprietor of the right to mining enterprise, may enter the territory of others, or make use of it, but at the same time he must petition to the Director of the Mining Supervision Office and information should immediately be conveyed to the landlord or the person who has right to the land.

ART. 56. Should any loss be incurred to the landlord or person concerned on account of the events stated in the three previous articles, the proprietor of the mining enterprise should pay proper indemnity money.

ART. 57. For the following causes the proprietor of the mine may use the land of others:

(1) Opening shafts and digging tunnels.

(2) To put extracted ores, earth and stones, the rubbish after blasting operations, materials, etc, etc.

(3) The erection of places for the selection of ores, or for the refinement of ores.

(4) The construction of large and small railways, roads, and canals for transportation, water or gas pipes, drainage, pools, or wells, subterraneon roads, and telegraph lines.

(5) Construction of works and other labors necessary for mining enterprises.

ART. 58. When the land of others is utilized by the proprietor of mining enterprises according to the provisions of the above, the approval of the Director of the Mining Supervision Office shall first be obtained. At the same time a petition should be submitted with the plan and description, to the Director of the Mining Supervision Office for approval.

When the Director of the Mining Supervision Office gives the above approval, he shall notify or inform the landlord or the person concerned.

After the above information is given should the proprietor of the mining enterprise desire to obtain the right to the land he should consult with the landlord or the person concerned. With regard to the provisions of the above two clauses, should the land belong to the officials, the sanction of the officials of the said district should be obtained.

ART. 59. When the land is utilized the landlord or the person concerned should be compensated adequately.

ART. 60. If the land be used for more than three years, or if the land after being used has changed its condition so as to be unfit for any other use, the proprietor should consult with the landlord, or at the request of the landlord the price of the land may be given once according to the market rate. But after the enterprise is suspended or the use of the land is over, the land should be handed back to its original owner.

ART. 61. In a case where the use of a certain portion of land has decreased the value of the rest of the land, or has involved other kinds of losses, the landlord and the person concerned shall be adequately compensated.

With regard to the rest of the land, which has lost its former utility, the provision of the previous article shall be followed.

ART. 62. Should it become necessary to erect or to alter the roads, drainage, walls, fences, and so forth on account of utilizing the lands of others, adequate compensation should be given. But this does not includes the matter which has been settled according to article 60.

ART. 63. After the notice or information of the fifty-eighth article is given should the landlord, or person concerned, desire to alter the form of his property, the erection of it, or to make wholesale repairs, etc., the approval of the Director of the Mining Supervision Office should be obtained, failing which no such compensation should be demanded.

ART. 64. After the notice or information of the fifty-eighth article is given, should the mining enterprise be abandoned or altered, with regard to the loss the proprietor of the mining enterprise should give adequate compensation to the landlord or person concerned.

ART. 65. The landlord or the person concerned may demand adequate security from the proprietor of the mining enterprise for compensation.

ART. 66. If the use of the land has been fixed, or has been finally decided, or has been fixed by the officials, while the arrangement for compensation or security has not yet been fixed, the proprietor of the mining enterprise may deposit an amount for compensation or find a guarantor, so that he may make use of the land at once.

ART. 67. The landlord or the person concerned may refuse permission for the use of land if the proprietor of the mining enterprise should fail to give a sum for compensation or to furnish a guarantor.

ART. 68. Within the period when the land is used the right of ownership of the property should temporarily be held by the proprietor of the mining enterprise, and its other rights should be temporarily suspended. But this does not apply to the case when no injury will be done to the utilization of the land.

ART. 69. After the use of the land is over the proprietor of the mining enterprise should restore the land to its original condition and return it to the original landlord. If the former condition can not be restored, thus causing loss to the landlord, compensation should be given, but regarding the case stated in article 60 it shall not apply.

ART. 70. With regard to the rules governing the use of land, the same shall apply to the right of the use of water.

CHAPTER V. MINERS.

ART 71. Laborers who work in connection with a mining enterprise are called miners.

ART. 72. The regulations governing the duties of miners fixed by the person who has the right to operate the mine should be sent to the Director of the Mining Supervision Office in his district for approval before they can come into force.

ART. 73. The proprietor of the mining enterprise shall prepare a book registering the names of miners according to the form furnished by the Ministry of Agriculture and Commerce, and shall keep it in the office of the mining concern.

ART. 74. With regard to the wages of miners, they shall be paid in current money on previously fixed date or dates either in one or two installments every month.

ART. 75. At the request of the miner the proprietor shall issue to him a certificate, stating plainly the period he has served in the mine, what kind of work he has been doing, his qualifications, his rate of wages, and the cause of his dismissal when he leaves the employ.

ART. 76. In case any miner is wounded, ill, or dies in consequence of his services rendered to the mine the proprietor shall pay medical or compassionate allowances.

ART. 77. With regard to the age of miners, the hours of work, and the women and child workers, the Minister of Agriculture and Commerce may regulate them.

CHAPTER VI. TAXES.

ART. 78. The mining tax shall be divided into two classes, (1) tax on the mining area and (2) tax on the mining product.

ART. 79. The rates of taxes on the mining area are as follows:

(*a*) For minerals classified as class 1 of article 6 each mow shall be taxed 30 cents per annum. But with regard to the platinum, gold, tin, iron, mixed up with sand in the bed of a river each ten chang in length shall pay a tax of 30 cents per annum. Minerals of class 2 under article 6 each mow shall pay a tax of 15 cents annually.

(*b*) If it be during the period of investigation the rates for the above tax shall all be reckoned at 5 cents.

ART. 80. The above tax on mining area is distinct from and in addition to the land tax.

ART. 81. The rates of taxes on products shall be classified as follows:

(*a*) With regard to the minerals of the first class of article 6, 1.5 per cent of the market price of the place where the ores are produced shall be levied.

(*b*) With regard to the minerals of the second class of article 6, 1 per cent of the market price of the place where the ores are produced shall be levied.

ART. 82. The tax on the mining area and the tax on product as stated in article 79 and article 81, respectively, shall be paid in two installments.

ART. 83. With regard to the third class minerals specified in article 6 no tax on mining area, or on product will be levied.

CHAPTER VII. POLICE OF THE MINES.

ART. 84. With reference to the affairs in connection with police of the mines they shall be managed by the Minister of Agriculture and Commerce and the Director of the Mining Supervision Office, and their regulations shall be fixed by ministerial orders of the Ministry of Agriculture and Commerce.

ART. 85. If the Minister of Agriculture and Commerce or the Director of the Mining Supervision Office should consider that there is danger or anything that would tend to impair the public interest in connection with the works of the mine, he may instruct the proprietor of the mining enterprise to take precautionary measures or to suspend the work temporarily.

ART. 86. The Minister of Agriculture and Commerce or the Director of the Mining Supervision Office may demand the employment or change of experts employed by the person who has the right to operate the mine. With regard to the qualifications and responsibilities of the above experts they shall be fixed by ministerial orders of the Ministry of Agriculture and Commerce.

ART. 87. Within one year of the cancellation of the right to mining enterprise, the provisions for precautions against danger shall continue to have force.

The Minister of Agriculture and Commerce or the Director of the Mining Supervision Office may instruct the original proprietor of the mining enterprise to take precautions against danger.

CHAPTER VIII. JUDGMENTS, COMPLAINTS, AND LAWSUITS.

ART. 88. With regard to the granting or refusing to grant the right to mining enterprise, an appeal may be lodged with the Minister of Agriculture and Commerce within three months of the decision should the petitioner take exception to it. If the decision be against law or causing injury to the right of the party, administrative lawsuits may be instituted.

ART. 89. With regard to the failure to settle points by consultation provided for in clause 1, article 35, petitions may be sent to the Director of Mining Supervision Office for decision.

If the above decision be not agreed to by the party, appeal may be made to the Minister of Agriculture and Commerce. If the decision be against law causing injury to the right of the party, administrative lawsuits may be brought against the authority concerned.

ART. 90. When the proprietor of the mining enterprise does not agree with the decision for the cancellation for the right to mining enterprise, he may appeal to the Minister of Agriculture and Commerce. If the decision be against the law, causing injury to the right of the party, administrative lawsuits may be brought against the authority concerned.

ART. 91. If no settlement can be arrived at with regard to the use of the area, the compensation money, or the security, the proprietor of a mining enterprise may petition the Director of the Mining Supervision Office for decision.

With regard to the above decision regarding the use of the land, should either party refuse to accept the decision, an appeal may be sent to the Minister of Agriculture and Commerce. If the decision be against the law, causing injury to the party, administrative lawsuits may be brought against the authority concerned.

With regard to the decision of the first clause regarding the compensation money and security, if the decision be not accepted by either party, a lawsuit may be brought up in the local court.

ART. 92. If the decision be not accepted, the person may appeal or bring an administrative lawsuit within 60 days after receipt of the information. In cases when no such information has been received, the period shall begin from the date when the decision is publicly notified.

ART. 93. If foreigners, who have been partners of Chinese citizens in mining affairs, or who have been employed by the Chinese, should have any dispute in connection with mining affairs, the case must be settled by the decision of the Director of the Mining Supervision Office.

CHAPTER IX. PUNISHMENTS.

ART. 94. Any person who should obtain the right to a mining enterprise by fraud, or should secretly operate the mines before obtaining the right to a mining enterprise shall receive a punishment of limited imprisonment not exceeding three years, or a fine not exceeding $3,000.

ART. 95. Any person found secretly selling or mortgaging the right of a mining enterprise shall receive a punishment similar to that of the previous article.

ART. 96. If by mistake operations should be carried outside the registered area of the mine, a fine not exceeding $500 shall be inflicted.

ART. 97. When a person is fined or punished in accordance with the provisions of any of the above three articles, the mineral he has obtained shall be confiscated, and if they were sold or made use of, the prices should be paid to the authority.

ART. 98. In case of a violation of the provisions of article 13 or a noncompliance with the instructions of article 85 or article 87, clause 2, a fine not exceeding $500 shall be imposed.

ART. 99. In case of a violation of the provisions made in article 27, article 44, or article 74, a fine not exceeding $200 shall be imposed.

ART. 100. In case of a violation of the provisions of articles 54, 72, or 73, a fine not exceeding $100 shall be imposed.

ART. 101. In a case where the proprietor refuses to allow an investigation or stops the officials of the district from investigating the books or articles in connection with a mining enterprise, a fine not exceeding $50 shall be imposed.

ART. 102. Any proprietor who tries to evade or has evaded a tax shall be fined three times the amount of the tax.

ART. 103. In cases where the provisions of this law or orders issued by the authority of this law be violated, the following provisions in the criminal law should not be followed, viz: Commutation, the severer punishment for the repetition of similar offense, or one punishment for several offenses put together.

ART. 104. Should the proprietor be not an adult person or a man who has been forbidden to undertake any enterprise, the provision for punishment made by these regulations shall apply to his legal agent. But when the person who is not an adult has the same ability as the adult this shall not apply.

ART. 105. When the agent, employee, or other person who has been in the enterprise, violates these regulations in connection with a mining enterprise, the proprietor can not be exempt from the punishment under this law on the ground that the offense did not originate with him.

CHAPTER X. ANNEX.

ART. 106. These regulations shall have force from the date of their promulgation.

ART. 107. Within six months of the promulgation of these regulations all the mines which obtained certificates previously shall, according to these regulations, send in petitions for registration.

ART. 108. Within six months of the promulgation of these regulations all the annual rent for mining area and output taxes hitherto levied according to the old regulation, shall be received accordingly, and those which have not reached the half year, shall be reckoned by the month.

ART. 109. The mining tax on the ores specified as class 3 in article 6, a tax instituted before the enforcement of the present regulations has been classed as local tax, shall continue to be so as heretofore.

ART. 110. With the exception of those which have been provided for in other laws and orders, the provisions made in these regulations shall apply to the official mining enterprises.

ART. 111. The contracts and agreements made before the enforcement of the present regulations, for the raising of foreign capital for the development of mines, shall continue in force as heretofore.

IRON-MINING REGULATIONS.

Following are the Chinese regulations relating to iron mining:

PROVISIONAL REGULATIONS GOVERNING THE GRANTING OF LICENSES FOR IRON MINING.

Promulgated November 27, 1915, and revised August 11, 1916.

ARTICLE 1. Whenever any Chinese merchants apply for sanction to work iron mines, the Ministry of Agriculture and Commerce shall examine their qualifications and decide at its own discretion whether special sanction will be granted or rejection be made. But the ministry may submit to the Cabinet for consideration such cases as it deems important before making a decision. In both cases the ministry shall decide whether or not the merchants are to be superintended by the Government or to work jointly with the latter, and the privileges of priority stipulated in the Mining Regulations, as well as in all other regulations relating to the same, shall not be applicable here. No matter whether or not the merchants are to be superintended by the Government or to work jointly with the latter, the ministry shall appoint an official to superintend all matters.

The above experimental companies shall be established exclusively with Chinese capital, and the Mining Regulations as well as other regulations governing the establishment of joint mining companies with Chinese and foreign capital stipulated in the law relating to the same shall not be applicable here.

Art. 2. In such experimental iron-mining companies, with the exception of mining engineers, no foreign members shall be employed. The mining engineers employed in such companies shall be restricted in the exercise of full power, and the agreements for their employment shall be first submitted to the Ministry of Agriculture and Commerce for examination and approval.

Art. 3. The Government possesses privileges of priority to purchase the iron ores produced by these experimental iron-mining companies. If the said companies desire to make agreements with foreign merchants for the purchase of their iron ores, sanction from the Ministry of Agriculture and Commerce must be first obtained before such agreement can be considered valid. And if agreements were made with foreign merchants before the promulgation of these regulations, the Government will still have the privileges of priority to purchase the rest of the ores after the quantity for the foreign merchants stipulated in the said agreements has been supplied.

Art. 4. Besides the mining tax, the customs dues, and the likin duty, which have to be duly levied, an iron tax of 40 cents shall be paid on every ton of iron ores produced by these experimental iron-mining companies. This iron tax is to be collected by the provincial financial bureau after investigations from time to time, and half of this tax collected shall be remitted to the Ministry of Agriculture and Commerce in the first and seventh months of each year (January and July), while the other half shall be kept in the Province as funds for investigations on mining affairs and the establishment of mining schools.

The iron ores produced by companies whose refineries are established with exclusively Chinese capital shall be exempted from the iron tax as stated above.

Art. 5. With the exception of those articles conflicting with these regulations, the Mining Regulations and other laws relating to mining shall be applicable.

Art. 6. These Provisional Regulations shall be in force from the day on which the President gives his sanction to them.

REGULATIONS GOVERNING THE SUPERINTENDING POWER AND FUNCTIONS IN THE ESTABLISHMENT OF IRON-MINING COMPANIES.

Promulgated February 8, 1918, by the Minister of Agriculture and Commerce.

Article 1. In each of the iron-mining companies, no matter whether they are established by merchants and superintended by the Government or they are established jointly by the Government and the merchants, a superintendent shall be appointed by the Ministry of Agriculture and Commerce to superintend the business of the company, in accordance with the Provisional Regulations Governing the Granting of Licenses for Iron Mining.

Art. 2. When the mines of different iron-mining companies are situated near each other or when there are easy means of communication between these mines, the Ministry of Agriculture and Commerce may appoint one superintendent for these companies.

Art. 3. Regarding the sale of ores and other dealings with foreigners, as stated in article 3 in the Provisional Regulations Governing the Granting of Licenses for Iron Mining, they shall not take effect before sanction from the Ministry of Agriculture and Commerce has been obtained through the superintendent.

Art. 4. When the company intends to issue shares or increase its capital, the measures for such purposes must first be submitted to the superintendent for consideration and decision, in accordance with the Provisional Regulations. And if the object of such actions is to pledge the mines as security in contravention of article 1, section 2, of the Provisional Regulations, the superintendent shall prohibit the company from doing so and at the same time report to the Ministry of Agriculture and Commerce.

ART. 5. The plans of the company to work the mines or to refine ores and the making of agreements for the employment of engineers shall be first submitted to the Ministry of Agriculture and Commerce for examination through the superintendent.

ART. 6. The superintendent may examine the business account agreements and other important books of the company at any time.

ART. 7. The superintendent shall make exhaustive investigations on the iron tax to be levied on the iron ores produced by the company, in accordance with article 4 in the Provisional Regulations, and have the same duly collected and divided into two portions for remittance to the central Government, as well as deposit in the Province for use.[1]

ART. 8. The salary of the superintendent is to be drawn from the portion of the iron tax retained for local use, with the sanction of the Ministry of Agriculture and Commerce. If the superintendent is to superintend more than one company, as stipulated above in article 2, no additional salary shall be drawn.

ART. 9. For the management of necessary affairs the superintendent may employ from two to four clerks, whose salary and miscellaneous fees are to be drawn as official expenses from the funds retained for local use, as stated above, but the amount should be fixed carefully and minutely.

ART. 10. The superintendent shall render an annual report to the Ministry of Agriculture and Commerce on the conditions of business, the drawing of salaries, and the receipt and defrayment of funds.

ART. 11. The forms of documents used by the superintendent are as follows: (*a*) To the Ministry of Agriculture and Commerce, as well as the highest provincial administrative officials, the form of a memorial shall be used. (*b*) To the taoyin, hsien magistrate, and other officials of equivalent rank, the ordinary form of documents shall be used. (*c*) To the company the form of orders shall be used.

ART. 12. When the superintendent has clearly done things in violation of these regulations or other Government regulations and orders relating thereto, he may be dismissed at any time by the Ministry of Agriculture and Commerce.

ART. 13. Whenever there is any article in these regulations requiring revision, it may be revised and enforced by the Ministry of Agriculture and Commerce.

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[1] The regulations do not state "central Government" or "Province," but that meaning is doubtless implied.

CHINESE GUILDS AND CHAMBERS OF COMMERCE.

By Commercial Attaché Julean Arnold.

GUILDS.

ATTRACTIVE HALLS IN CHINESE CITIES.

The foreign visitor to a Chinese city generally finds but few attractive buildings. In most cities these are included in the two categories of temples and guild halls—not greatly unlike in general appearance and having many characteristics in common. The tourist visits the guild hall and admires the beautiful, massive Chinese architecture, generally shown at its best; the stone lions without and ornate idols within (guardians of the entrance); the great detail in the wood and stone carvings, in which the interior decoration abounds; the stone-paved, open interior courts, with symmetrical spaces planted in flowers and trees or covered with potted plants; the open-air theatrical stage; and the hardwood, beautifully carved, but uncomfortable-appearing Chinese furnishings. He will probably pay little attention to the relics that the natives themselves prize most highly, the sketches and scrolls painted or written by departed celebrities. Foreign merchants regard the guilds with a certain degree of awe, since they are often made to feel the influence of these organizations upon the business in which they are engaged. It is, however, only the more important guilds that can afford to have spacious guild halls. In the city of Canton, the most populous and wealthy city in the whole of China, there are said to be 72 trade-guild organizations. Probably less than one-third of these have buildings specially constructed for their purposes.

CONDITIONS THAT ENCOURAGED DEVELOPMENT OF GUILDS.

It must be borne in mind that China is only now emerging from a civilization analogous in a great degree to that of the Middle Ages in Europe. For centuries its Government had not functioned constructively for its people. The masses had learned to expect little from the central Government in the way of either assistance or protection. On the other hand, the Government existed as a thing almost apart from the people. They were left to manage their own affairs so long as they contributed the taxes exacted of them, though attempts were constantly made to increase these exactions, which only just such organizations as the guilds could successfully combat. This combination of conditions encouraged the development and perpetuation of the guild associations. With no definite body of law, no reliable machinery for the execution of the law as it existed, and no confidence in the administration of government uniformly to adjudicate difficulties in a spirit of justice and equity, the guild organizations came to occupy an important position in the body politic of the country.

TWO CLASSES OF ORGANIZATIONS—GENERAL FUNCTIONS OF TRADE OR CRAFT GUILDS.

In the main, the Chinese guilds may be divided into two classes—(1) trade or craft guilds and (2) provincial guilds. The former are known to the Chinese as "kung-so" (public office or public place, a place where public rather than private matters are handled), while the latter, "hui-kuan" (clubhouse), are associations of fellow provincials.

All important trades and handicrafts have their guilds throughout the cities of China where their interests would warrant, as, for instance, the silk, tea, goldsmiths', foreign goods, butchers', bankers', millers', carpenters', tailors', barbers', potters', and similar guilds. All who will subscribe to the rules of membership are eligible without election. The lot of the tradesman who would remain outside the guild of his craft is an unhappy one, and few there are who do not find it to their advantage to seek cover by subscribing to the rules. The new member is expected upon entering the guild for the first time to make some present to the guild—something ornamental or useful, as for instance a pair of scrolls, a set of glass lanterns, or pieces of furniture.

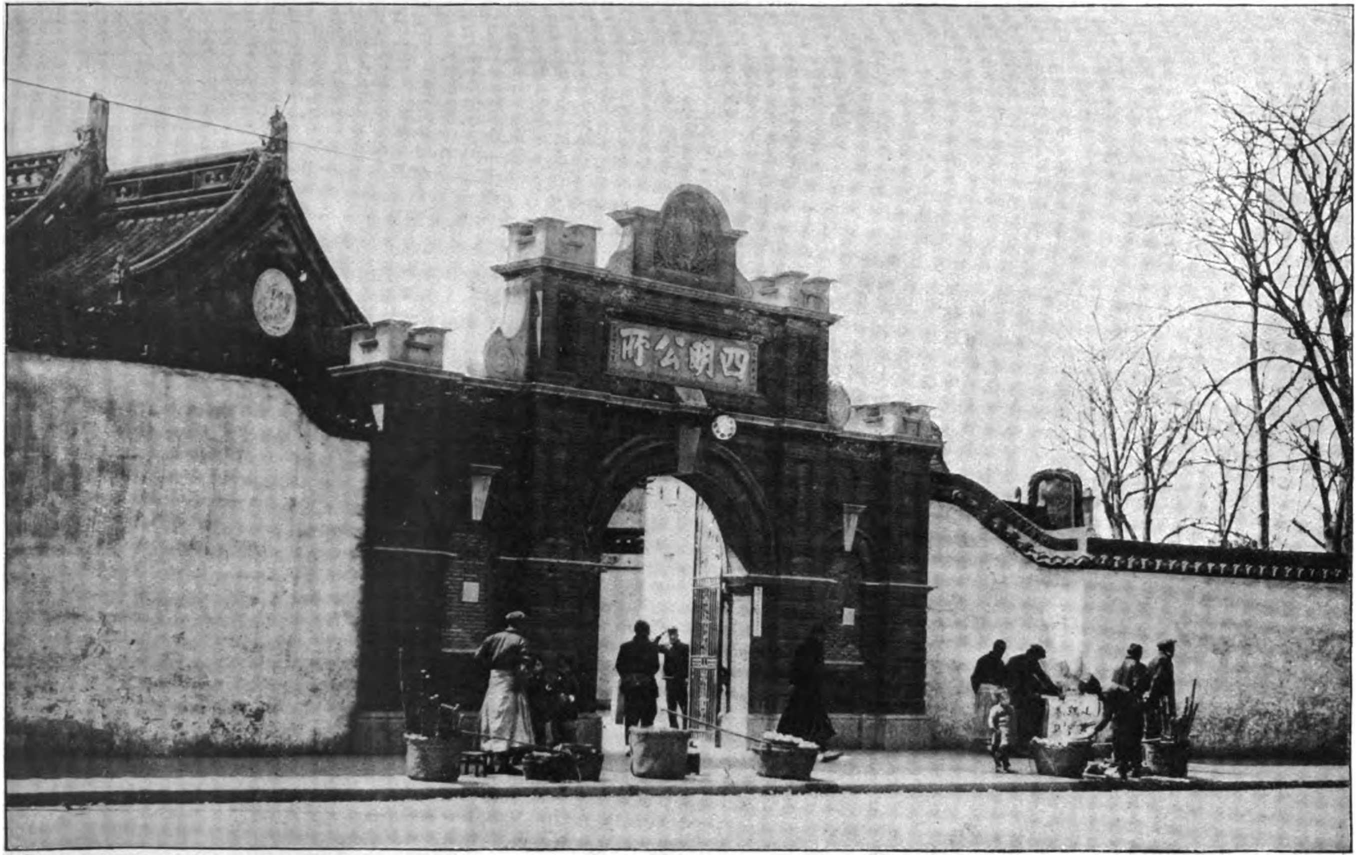
There is little that is autocratic about the internal administration of the guild. Elections of officers are frequent, and provisions are made whereby different individuals may occupy the offices from time to time.

These guilds make regulations governing their respective trades or crafts, with regard to prices of products, hours of work, apprenticeship, taxes, and, generally, all matters affecting their interests. In former days, when the local authorities were more powerful and autocratic, the guilds often came forward and protested in cases where flagrant injustice had been done to any of their members in lawsuits. This was done also in cases of excessive or unjust taxes or other impositions on the part of local officials against any members of the guild. Seldom, however, do the guilds concern themselves with measures to extend or improve their business, these being left to the energy and resourcefulness of the individual members.

The guilds receive their income from taxes on the members' sales, on a pro rata basis, as well as by entrance fees and fines. Falsification of accounts by members is met by expulsion or heavy fines, the members' books being open to inspection at any time.

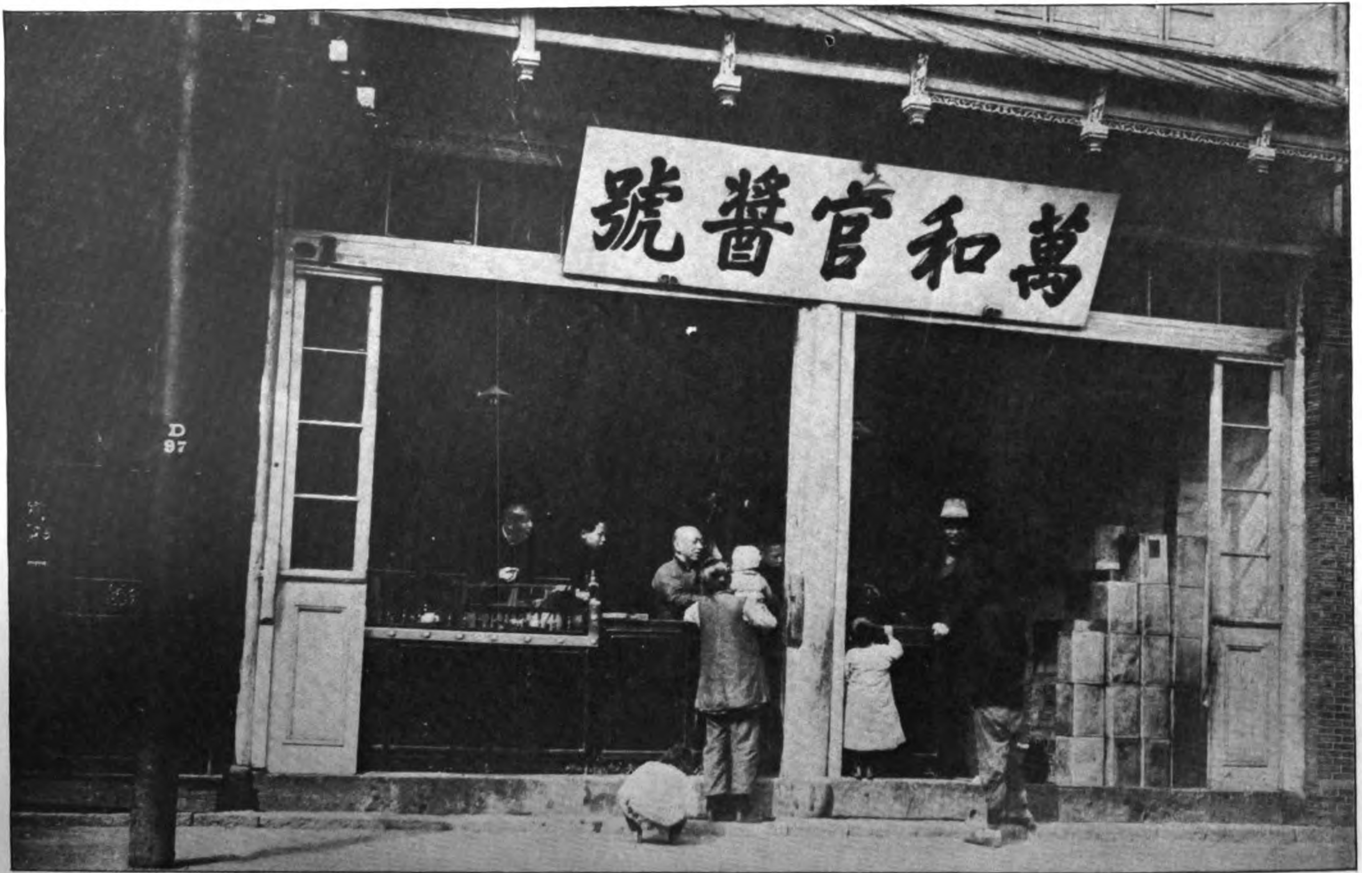
SETTLEMENT BY ARBITRATION OF DISPUTES BETWEEN MEMBERS.

One of the important functions of a guild is the settlement by arbitration of disputes between members. Reputable Chinese will refrain from taking cases into court except as a last resort. The principle of arbitration is probably better and more thoroughly established in China than elsewhere. It is seen to good advantage in the settlement of disputes within the guilds. If, however, a member of a guild should become involved in a lawsuit, the guild assists him by contributing to the expenses—that is, if the cause be a worthy one. Members guilty of concealing a robber or receiving stolen property are heavily fined or expelled. The regulations provide for punishments for long lists of offenses. If a member charged with an offense (as, for instance, selling below the market rate fixed by the guild)



Photograph by R. W. Child; courtesy of "Asia."

FIG. 10.—NINGPO GUILD AT SHANGHAI.



Photograph by R. W. Child; courtesy of "Asia."

FIG. 11.—TYPE OF SHOP IN WHICH SOME POORER GUILDS HOLD MEETINGS.

confesses to his guilt, he is punished, but not expelled. It must be remembered that competition in China is very severe and that it is probably impossible for the guilds to prevent their members from underselling the so-called fixed market rates. On a large strip of red paper his name and address are written, as well as the offense of which he is guilty and the fine that the guild has imposed upon him. This latter is generally in the nature of a dinner to all members at an appointed time, accompanied by a theatrical entertainment, after which the recalcitrant member is admitted back into the fold.

SOCIAL AND CHARITABLE ACTIVITIES.

The guilds subscribe to the funeral expenses of their poorer members, sometimes donating the coffin. They also assist in the care of the widows and helpless dependents of a deceased needy member. The guilds maintain fire-fighting apparatus and assist in quenching fires generally. The more important of the guilds have buildings or guild halls where business is transacted, feasts and theatricals provided, and ceremonies performed, such as honoring the guild's patron saint. It appears, however, that the trade and craft guilds of any one city are independent of those in other cities, though the rules and regulations and administrative practice for the same trades and crafts follow along similar lines.

CHARACTER AND PURPOSE OF PROVINCIAL ASSOCIATIONS.

The second of the great classes of guilds in China are the provincial associations. These are guilds composed of persons who originally resided in other Provinces or prefectures. They are generally strong and influential bodies. In Shanghai, for example, there are the Cantonese, Ningpo, Shaoshing, Szechwan, Shantung, Wusih, Kashing, Hunan, and numerous other provincial and prefectural guilds—in fact, as many as there are Provinces and prefectures when the residents from such Province or prefecture are present in considerable strength.

They are founded by a few influential promoters, and their constitutions are generally registered with the central Government as well as with the local authorities. They are constituted of the officials and people of one Province who are holding office or residing in another Province and who have a recognized standing.

The function of a provincial guild is to promote the ties of friendship between fellow-provincials. It settles litigation and family disputes and acts as peacemaker in difficulties between its members. The guild looks after stranded or destitute provincials who are often handed over to it by courts or local authorities to be dealt with and returned to their homes. It usually has a cemetery of its own, and deceased members of its Province are buried there, or the coffins are deposited in its mortuary till relatives and friends transport them to their native Province for interment. Periodical sacrifices are offered to the dead on festival days, and religious rites are performed in these cemeteries. Ceremonies are held at stated times honoring the guild's patron saint. The Cantonese guild at Shanghai, for instance, pays obeisance to Kwan Ti, the God of War, who is also honored because of his reputed high business qualities.

CANTONESE GUILD AT SHANGHAI.

This Cantonese guild has three or four hundred participating members. There is a board of directors elected annually from a list furnished by the advisory committee of 130 prominent Cantonese. This advisory committee is permanent; vacancies thereon are only occasioned by death or resignation. It is the committee from which the board is elected. There are no discriminating qualifications between members. Each and every Cantonese may consider himself a member and is entitled to attend the general members' meetings if he chooses. The board holds a meeting once a week to consider matters of control and general business. A paid secretary and staff function under the board. It also takes up any matter pertaining to the welfare of the Cantonese residents at Shanghai that is brought to its notice. It is often called upon to do service in organizing relief work necessitated by calamities in the mother Province. In connection with the floods in Kwangtung Province a few years ago, two or three million dollars were raised among the Cantonese in Shanghai and remitted to Canton for the relief of refugees. The Cantonese guild also cooperates with other bodies in charitable work when called upon to do so.

Since the establishment of the Republic, the guild has, on its own initiative, sent telegrams to the central Government expressing its views on public and political matters, thereby gradually acquiring political influence as a representative body. Even during the days of monarchy its influence was considerable, as its views were often solicited by the provincial and central Governments.

The provincial guilds assist educational and hospital work. The Canton guild at Shanghai maintains two schools and a hospital in connection with that institution. One is a free primary school and the other a middle school. Funds have just been raised to erect a modern school building capable of accommodating 500 pupils.

Thus far provincial guilds have not engaged in social activities except on rare occasions, when a reception is given to a provincial official or, once in a year, when members come together for a New Year's reception to extend congratulations and felicitations for the coming year. The Cantonese and Ningpo Guilds have taken a forward step and have now formed clubs or provincial associations, on regular club lines, for their members. They intend to have club buildings where members may meet after business hours for recreation and sociability. This practice will undoubtedly extend to other provincial guilds. Gradually it may induce these guilds to develop into modern clubs.

PLACE OF GUILDS IN NEW LIFE OF CHINA.

The question naturally arises as to the place of the guilds in the new order in China. The trade guilds developed to serve the proprietor artisan and the business owned and conducted by an individual or a family. The provincial guilds developed as an essential agency for the necessary protection of a group of strangers in any given section of the country. With the development of modern industrialism, organized capital and labor, and corporate business, household industry must be superseded by the modern industrial plant, and individual business by the corporate institution. Employers and employees will divide into two classes. The nucleus of the modern trade-union or employers' association is already here, for the guild can adjust itself, on the one hand, to the needs of the laboring classes, or, on the other hand, develop into an association of industrial employers—undoubtedly two distinct organizations, as in the West.

Modern transportation and other up-to-date communication facilities will lead to a greater intermingling of the peoples of the different sections of the country, with the eventual eradication of provincial ties and dialectic language differences; and this, with a uniform system of schools, uniform currency, and uniformity of institutions generally, together with the development of a code of law and the machinery essential for its equitable administration, will remove the great necessities that called into existence the "hui-kuan" or provincial clubhouses in their present form. It is quite likely, however, that these organizations will develop into substantial modern clubs and will serve a useful purpose in a constructive way for their members, but with less rigid qualifications as to membership based on locality. Through the agencies of their guilds the Chinese people have acquired the capacity for organization and for the settlement of disputes by arbitration—two valuable contributions to their society. A proper readjustment of the functions of these organizations to meet changing conditions will place these guilds in a prominent and powerful position in the molding of the New China, in which they should play a most useful part in the service of their country.

For a detailed description of Chinese guilds, the reader is referred to H. B. Morse's compact, comprehensive booklet "The Guilds of China," published by Longmans, Green & Co. in 1909.

CHAMBERS OF COMMERCE.

INTRODUCTION.

Chinese organizations are difficult to define and describe. Their regulations and by-laws may lead the investigator into wrong conclusions. The Chinese chamber of commerce is quite different from American commercial organizations. It is a recent development in China. The first chamber of commerce in China was probably the Shanghai organization. In 1902 there was formed in Shanghai, under Government auspices, the Shanghai Commercial Guild, apparently a sort of general clearing house for the many guilds in Shanghai. In 1903, with the creation of the Ministry of Commerce at Peking, this guild became the Shanghai General Association of Commercial Affairs. In 1911 the name was formally changed to Shanghai General Chamber of Commerce. The Hankow General Chamber of Commerce came into being in 1908. There are now more than 800 chambers of commerce in China with a reported aggregate enrollment of 230,000 firms. About 50 of the 800 chambers enumerated are to be considered important bodies.

To organize a chamber of commerce in China it is necessary to make application to and secure the approval of the Ministry of Agriculture and Commerce through the governor of the Province. Furthermore, the officers elected, the resignations accepted, and the amendments to the by-laws or regulations must have the approval of this Ministry. Thus the Chinese chamber is in reality a quasi-governmental institution.

CHARACTER OF MEMBERSHIP.

In a sense, the Chinese chamber is a federation of merchant and trade guilds, although not limited in its membership to these organizations. According to the regulations of the Shanghai chamber, guilds and unions of different trades may join as a body, but firms and traders not connected with guilds may join individually. In Shanghai, for instance, the Native Bankers' Guild, comprising about 1,000 Chinese banks, is a member of the chamber of commerce through its directors, four in number, who became, at the time the guild's application was accepted, the guild's representatives in the chamber. There are about 20 native banks of a modern type that do not belong to the Native Bankers' Guild. These are individual firm members. They expect, however, to organize into a group or guild, separate from the Native Bankers' Guild, when they will transfer their individual chamber memberships into body membership. Shanghai has about 150 guilds, and it has 500 members in its chamber of commerce. Hankow has 105 guilds, with 269 guild representatives in its chamber of commerce.

It is significant that the Chinese chamber does not permit Government officials, professional men, newspaper editors, or members of the legislature to become members.

OFFICERS, DIRECTORS, AND COMMITTEES.

The officers of the Shanghai Chamber are a president, a vice president, and 33 committeemen or directors, who are elected from and by the guilds' representatives in the chamber. The committee serves for two years. The president and vice president are elected for one year, subject to one reelection only, by the directors and with the approval of the governor and the Minister of Agriculture and Commerce. All elections are by ballot, majority vote ruling. Special committeemen, not exceeding one-fifth of the total number of the executive committee, may be appointed by the directors. Officers, directors, and members of the committees receive no compensation. The general committee selects secretaries and clerks, who may receive compensation. In the more important treaty ports, there are also superintendents, interpreters, and English-speaking secretaries. Standing committees on various lines of activity are provided for. The Shanghai Chamber's dues range from 25 to 1,000 taels. Representatives of small firms pay 25 taels, while guilds, such as the Shanghai Bankers' Guild, pay 1,000 taels a year. Chambers in less wealthy communities work on a lower schedule of dues. The writer is informed that it is not an easy matter to become a member of the Shanghai Chamber, if one is without substantial connections and the backing of several men of influence in the community.

ACTIVITIES OF CHAMBERS AS INTERMEDIARY AGENTS.

The Chinese chamber of commerce is an intermediary between the Government and the merchant classes. Its assistance is solicited by the Government in securing the enforcement of a new law or regulation affecting mercantile interests. A Chinese court will often refer cases to the chamber for its opinion or ask the chamber to arbitrate in disputes between individuals. Information regarding trade practices and customs will be sought by officials in adjusting difficulties with the people, and the chamber's opinions in these matters will carry much weight with both the officials and the people generally. Since the Revolution, in 1911, many Chinese communities have suffered from attacks by organized bands of brigands. Chambers of commerce have often saved their communities by negotiating with these brigands, sometimes paying over to them sums of money in return for which these communities were not further molested, at least by that particular band. In some cities, the chambers of commerce attend to the policing and certain other municipal functions. In Shanghai, negotiations are being perfected whereby members of the chamber of commerce will be admitted to bail when arrested, pending trial, the chamber giving security at all times for any of its members. The petitions to the Government from the chamber generally command consideration. Within recent years these petitions have become quite numerous and appear to carry considerable weight, reflecting the opinion of a large representative community. In cases of strikes or riots, the chamber often renders effective service of an intermediary and pacifying character. It aids in safeguarding China's interests from encroachment.

NATURE AND IMPORTANCE OF JUDICIAL FUNCTIONS.

Probably the most useful function of the Chinese chamber of commerce, or that most generally exercised, is its judicial activity. Reputable Chinese shrink from carrying their disputes to their courts. Chinese business practices and usages are built on custom rather than on law. The guild and chamber of commerce tribunals, or arbitration departments or offices as they are termed, settle the great majority of disputes in a Chinese mercantile community. They are the interpreters of the common law of business practice. Such courts arbitrate rather than adjudicate. In disputes between members of a certain guild, the guild arbitration committee will, under ordinary circumstances, handle the case, but in cases between the members of different guilds or others, the chamber finds room for action, even though they may not be members of the chamber. A certain fee is charged, generally 5 per cent of the amount involved up to a certain amount, but the findings of the chambers' tribunals are generally fair and equitable. Through its strong position in the trade community, it wields a powerful influence in the enforcement of its awards. Relatively little publicity is given to its findings, and those presiding are business men familiar with local conditions and practices. In cases involving members of certain guilds, the directors of the guilds concerned are generally taken into consultation. No award stands unless subscribed to by the parties to the dispute. If one refuses to subscribe, the chamber is privileged to publish its findings in the daily press. It seldom resorts to this or other means of enforcing its awards, but permits the case to go to the courts, which generally refer it back to the chamber or at least are guided by the chamber's findings, with the result that the award is accepted with possibly a slight concession to the complainant. If not, the court is asked to enforce it. The Chinese chamber also acts as an intermediary in settlement of difficulties between various guilds, but these cases are diplomatic rather than arbitration matters.

PROTECTION AND FURTHERANCE OF COMMERCIAL INTERESTS.

In a commercial way, the chamber is supposed to assist its members in the protection and furtherance of their commercial interests. Firms represented through members are urged to register with the chamber, and samples of chops, seals, and stamps used by these firms are kept as a reliable record to replace mutilated or lost ones. The Hankow Chamber, according to Vice Consul Howe, has 1,500 firms registered with it. The chamber performs certain notarial acts for its members, using its official seal, grants security and guaranty in certain cases, and will even assume debts of its members under exceptional circumstances. It will give its guaranty to the note issues of cash shops, and to native bank orders of member shops and banks. Consul Johnson, in an article on the Hunan chambers of commerce, relates instances of note issues by certain chambers having the sanction of the authorities, securing a considerable circulation, and thus serving a useful purpose in several cases of financial stringency.

The by-laws of the Chinese chamber of commerce make it appear that this organization is charged with considerable activity of a constructive nature for the commercial and industrial welfare of the community. General conditions in China have not, up to the present, been particularly favorable or encouraging to constructive work on the part of members of a community, as the Government has failed to create a soil fertile for such activity; in fact, almost the reverse has been the case. Furthermore, developments of this character will only come as a result of education. Civic spirit and collective constructive activity for the welfare of the community generally are greatly needed in China. The Chinese chambers of commerce will undoubtedly become important factors in this newer development in China. The Shanghai Chamber has erected a beautiful modern building specially adapted to its use, with a large auditorium and meeting and banquet rooms. It is now planning an exhibition hall for Chinese products and to aid China's mercantile and industrial development.

It must be remembered that the Chinese chamber is young and finds itself in an atmosphere long stagnant. Another 10 years will probably give China a chamber functioning in a constructive way for the whole community. The field of possibility is unlimited. The Chinese chambers of commerce exhibit a receptive attitude, and the writer believes that they will before long prove effective agencies through which foreign trade interests may be advanced. It behooves the American manufacturer and business man to cultivate the friendship of the men behind these institutions and to cooperate with them in their desire to make their organizations effective in the advancement of China's trade, commerce, and industry.

ASSOCIATED CHAMBERS OF COMMERCE OF CHINA.

It was probably in consequence of the visit to China of the representatives of the Affiliated Chambers of Commerce of the Pacific Coast about eight years ago, that the Associated Chambers of Commerce of China was organized in 1913, with its headquarters in Shanghai. Fifty chambers are members of this organization, representing all the Provinces in China. At its annual conferences it considers questions of national significance to the trade and industry of the Republic, such as currency reform, internal taxes, banking laws, expositions of China's products, etc. At one session it concerned itself with a proposal for joint American-Chinese banking and shipping companies, and as a result several millions in Chinese capital were pledged, but the European war and internal troubles interfered with the consummation of the plans.

Americans wishing to get into communication with the Chinese chambers should address the organizations direct for Shanghai, Canton, Hankow, and Tientsin, and in care of the American consul for other ports.

For further information on the Chinese chambers of commerce the reader is referred to the report on the Hankow General Chamber of Commerce, by Vice Consul William S. Howe, published in COMMERCE REPORTS for June 23, 1917, and the report of Consul Nelson T. ~~Johnson, of Changsha~~, on the Changsha General Chamber of Commerce, which appeared in COMMERCE REPORTS for March 30, 1917. Mr. Howe's report is the fullest available description of a Chinese chamber of commerce.

POSITION AND FUNCTIONS OF THE CHINESE COMPRADOR.

By Commercial Attaché Julean Arnold.

It seems strange that in the various books written in China, more especially those of a commercial character, so little should have been said by way of description of one of the most important institutions of the country in its relations to foreign trade—that of the "comprador." Giles, in his "Glossary of Reference," defines the comprador as "a negotiator of purchases, from the Portuguese 'comprar,' to buy," and adds, "It is the name given to the Chinese agent through whose means foreign merchants in China effect their purchases and sales."

Mr. Y. C. Tong, a Chinese banker educated in the United States, makes the following statement regarding the functions of the Chinese comprador:

> Ever since the beginning of foreign intercourse in China, the comprador in a foreign firm has been an indispensable man in the office. He is the medium of dealings between the firm and Chinese merchants and dealers.
>
> It would be impossible for the foreign firm partners or managers to see numerous Chinese merchants and dealers and while away time over cups of tea, or in the old days over the Chinese water pipes, and try to settle the terms of a contract or complacently discuss exchange, samples, and all sorts of other questions. The westerner has neither the time nor the patience to devote to such interviews with a host of Chinese merchants, dealers, and brokers.
>
> It must be remembered, too, that some Chinese, especially formerly, who were addicted to the opium habit would do business some time at midnight at a flower dinner or in the opium divan, and here the energetic comprador, keen after securing business, must keep company.
>
> The comprador, again, must be conversant with perhaps two score of different exchanges in different cities in China and the London sight draft or foreign gold exchange. He is responsible for native bank orders, checks, and drafts, and his staff will have to shroff[1] the coin or other specie collected for the foreign firm.
>
> He is also made responsible for the Chinese staff of warehouse keepers, shroffs,[1] coolies, and boys; in a word, he is the Chinese manager. The typical Chinese comprador is a very shrewd man, speaks "pidgin" English, and generally is a man of probity and integrity.
>
> In years gone by their word was as good as gold. Sir Ewen Cameron, manager of the head office of the Hongkong & Shanghai Bank, speaking at his farewell banquet some years ago, paid tribute to this phase of Chinese character by saying that he had never known a Chinese defaulter.
>
> Unfortunately, however, within the last decade or two, foreign adventurers have appeared on the scene, mushroom companies have sprung up, trading on Chinese credit and money and leaving their Chinese compradors in the lurch.

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[1] "Shroff," as a noun, means a silver expert, being a corruption of the Arabic "sarraf" (banker), common in every Indian town. Shroffs are Chinese employed at banks and large mercantile establishments to check all dollars that pass through the hands of the firm and eliminate the bad ones. These men pretend to distinguish three classes of good dollars—of first, second, and third qualities; but this "mystery" of the art has been exposed over and over again by their rejection of certain dollars as first class that had been paid out as such perhaps on the previous day. Shroffing schools are common in Canton, where teachers of the art keep bad dollars for the purpose of exercising their pupils; and several works on the subject have been published there, with numerous illustrations of dollars and various other foreign coins, the methods of scooping out silver and filling up with copper or lead, comparisons between genuine and counterfeit dollars, the difference between native and foreign milling, etc. (From "A Glossary of Reference," by Giles.)

Repeated instances of such nature have tended to lower Chinese business standards with the result that defaulting Chinese have become more frequent. Where "can do" and "finish" (word of mouth) served in former days, legal documents and bonds now take their place.

That the character and probity of Chinese compradors is generally high is evidenced by the fact that Chinese compradors are in vogue even in Japan.

The position of the comprador is a responsible and important one and has been created through necessity—the result of the foreigner's not speaking the Chinese language and having but little social intercourse with the Chinese.

Some German firms appreciated these difficulties and mingled and associated much more with their Chinese connections. They would mix with the compradors at social functions as equals, would offer medical advice to the compradors in illness, and in every way would appear at least very friendly to them.

It suffices to say that the comprador carries a heavy responsibility, as virtually Chinese manager for the foreign firm, and foreign firms would do well to give him his due and treat him with more consideration and cordiality than have characterized their attitude in the past.

It may be said that the position of the comprador is that of a go-between and Chinese cashier in a foreign firm, serving as a medium between the foreign firm and the Chinese dealers and attending to monetary and credit matters generally in the foreign firm's relations with Chinese. With no Bradstreet or Dun, with a complicated currency, and with difficulties in realizing on native securities because of the confinement of foreign business activity to certain designated treaty ports, it can be readily surmised how important is this latter phase of the comprador's position.

The compradors must possess capital, a knowledge of business, and an extended acquaintanceship among Chinese. Generally speaking, one may divide them into two classes—bank and merchandise compradors. The functions of the two are not greatly different in the main.

A detailed consideration of the position and requirements of a bank comprador will furnish to the reader in America a fairly good idea of the place of the comprador in trade generally, though it must be borne in mind that a comprador figures in a more prominent way in a foreign banking house than in many other lines of foreign business in China, on account of the complicated currency situation and the extensive credit relations that a bank must have with the trade. As with compradors generally, the question of security is the bank comprador's first requisite. In former days a bank's comprador was permitted to offer as security bonds signed by a guarantor or guarantors for a certain maximum amount with a cash deposit equal to about one-fourth of the amount of the bonds. On this cash deposit the bank allowed an interest of 5 to 6 per cent. At present most of the banks require a cash deposit, the usual sum being 100,000 taels (now equivalent to about $130,000 gold, but ordinarily equivalent to about $65,000 gold[1]). With the merchandising firm, the security demanded of the comprador would be usually a smaller amount, depending of course upon the volume of business transacted, but in some cases being no more than 5,000 taels.

The bank would be obliged to pay the comprador a monthly allowance of 200 to 500 taels, from which it is the usual custom for the comprador to pay his staff. In addition, the comprador would receive as compensation brokerage allowances conforming rather closely to the following schedule: One to one and one-eighth per cent on the sums deposited through the comprador, on the principal of loans issued by the bank and negotiated through the comprador, on the interest on renewed loans, on the purchase and sale of drafts and telegraphic transfers, and on the purchase and sale of dollars and taels; ½ to 1⅛ per cent on the purchase and sale of drafts and telegraphic transfers in gold currency, and on the purchase and sale of coins and bank notes in the gold currency of various countries. The brokerage to the comprador for special transactions must be fixed before the closing of the transaction.

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[1] See second paragraph of footnote on p. 124.

It is generally conceded that the comprador makes in reality more than his salary and brokerage schedule stipulate. His position with the bank is one of so much influence with the Chinese business public that he has many opportunities for gain on his own account—opportunities that may be considered quite legitimate. Hence, if shrewd, he will after some years with the bank emerge a wealthy man, though in justice to him it should be said that he will also have been responsible for the bank's having done a lucrative business through his connections.

The duties of the comprador may be enumerated as follows: To transact business for the bank; to introduce business to the bank; to look after all the monetary matters, such as the receipt and payment of money and the collection of checks, drafts, and notes; to offer advice to the bank regarding the condition of the local market; to compile commercial information for the bank; to recommend, control, and guarantee the Chinese staff of the bank.

With the exception of the business conducted with the Chinese Government, the comprador is held responsible for all the business done through him with Chinese dealers.

For instance, in the issuance of loans to Chinese firms or individuals through him, the comprador must countersign the loan contracts and/or the promissory notes; and in buying drafts or telegraphic transfers from native banks, the comprador must guarantee against nonpayment or delay in payment of them.

In order to carry on business without hindrance, the comprador always guarantees an amount that exceeds the amount of his security; the limit of the guaranteed amount, of course, depends upon the bank's confidence in the integrity of the comprador.

The comprador is probably obliged ordinarily to carry on his staff an assistant comprador, who takes his place in his absence but who accepts no responsibility, as this remains with the comprador; a market reporter, who under instructions from the bank, given through the comprador, secures business in the market for the bank, obtains credit information regarding the standing of certain Chinese firms, and keeps the bank informed on commercial and local market news; a silver expert, who tests the fineness and weight of sycee (silver bullion, considerable quantities of which are used in trade transactions in China) in the bank's transactions in silver; one or two bookkeepers to keep the comprador's books; several shroffs, through whose hands coins received and paid out must pass, in order that counterfeits may be readily detected and that the various silver dollars current in the market (some at slightly different rates of exchange value from others) may be handled to the best advantage; and several money collectors, who count the coin, are responsible for the delivery of money to customers outside the bank, and who collect money due the bank from those outside as well as from other banks. The total of salaries to these subordinates probably does not exceed in the aggregate $300 Mexican per month (216 taels). The writer is informed that, in some exceptional cases, the bank, by special agreement with its comprador, pays the salaries of the comprador's staff. The general practice in China is, however, for the comprador to pay his staff from his own remuneration. A comprador will generally carry one or several apprentices, sons of relatives or friends, to whom he furnishes food and, as they become of actual use, makes some small salary allowance. Beginning on page 258 is a blank form of contract of a bank with its comprador.

The comprador of an ordinary foreign import firm will receive a salary of about 150 taels per month and will provide a native bookkeeper and a money shroff. His contract will generally allow him one-half per cent commission on all business done, based on the c. i. f. value of the goods sold. In some cases where the volume of business is large the allowance to the comprador is only one-fourth per cent. As in the case of the bank comprador, the merchandise comprador must guarantee the firm's Chinese customers, advise with the firm as to market conditions, assist in bringing business to the firm, and in general act as the go-between and Chinese manager for the firm in its relations with the Chinese business public. The firm may carry in addition a number of native salesmen, but these are obliged to work in harmony with the comprador or there will be trouble. In many cases the comprador hires and is responsible for the native salesmen.

The longer a firm has been in the field in China, the less it should be obliged to depend upon its comprador. There is one very noticeable disadvantage in having to depend upon a comprador. He cultivates a certain clientele—a circle of friends, as it were—and very often confines his activities within this circle, sometimes to the discouragement of business with persons beyond. A bank comprador, for instance, will often restrict the extent of the operations of the bank among the Chinese community by playing favorites with Chinese friends to the exclusion of those beyond his selected group. One can very easily understand the advantages that such and arrangement might have for the comprador and the disadvantages that it might bring to the bank.

In the early years of foreign trade with China, the foreigners depended entirely upon their compradors, but profits were so handsome in those days that both foreign manager and comprador could, after a comparatively few years, retire on a competence. As the commercial world grows smaller through improved methods of communication, an increased general knowledge of world geography, better acquaintanceship through travel, and study by the peoples of the East and West of one another and one another's countries, competition grows keener and the reasons that first made the comprador an indispensable factor in the foreigner's relations with the Chinese begin to diminish in significance. Some foreign firms in China now boast of being able to get along without compradors. One will probably find, however, that these firms carry Chinese employees whom they style shroffs or native salesmen, who to all intents and purposes are compradors. The comprador as he is known to-day—or, better, as he was known 20 years ago—will merge into the native salesman, credit man, assistant manager, as the new order in business develops in the country. More Chinese will speak English and more foreigners will speak Chinese. More dependence can then be placed upon a properly trained Chinese staff.

The old comprador system is open to abuse. The writer has heard of many cases in which compradors made more than the firms they represented. On the other hand, as Mr. Tong points out, foreign adventurers have taken advantage of trusting compradors and, in some instances, have tricked and fleeced them. For the present, however, the comprador is still an indispensable element in China's foreign trade. He deserves all the credit given him and is capable of developing into an important factor in the newer order of things that is bound to come in the trade practices of his country. Whatever he may be called, in the foreign trade of the new China he will be a still greater factor than was the comprador in the foreign trade of several decades past. If the American business man would help himself, he should work with this comprador rather than apart from him, utilize his services, learn to know him and his methods, and teach him to understand American methods and American salesmanship—in a word, train a responsible Chinese staff under a responsible Chinese head.

SAMPLE FORM OF AGREEMENT FOR SERVICES OF COMPRADOR.

Following is a form of agreement used in the case of a comprador for banking business:

This agreement made this____of__________one thousand nine hundred and ______by and between____________________Bank carrying on a banking business at__________, city of the Republic of China and hereinafter referred to as "the bank" of the first part, and___________________ of __________ aforesaid (hereinafter referred to as "the comprador") of the second part: Witnesseth that each of the said parties hereto does hereby covenant and agree with the other, the bank hereby agreeing for itself and its successors and the comprador agreeing for himself, his heirs, and all others (if any) who in the event of his death shall be his representatives (according to the Chinese law) as follows:

1. The bank agrees to employ the said comprador at__________, city of the Republic of China, from the______day of__________, one thousand nine hundred and______, upon the terms hereinafter mentioned, and the comprador (having deposited with the bank the sum of__________taels (taels____) as security as far as the same extends for the due performance by him of the provisions of this agreement, interest thereon being allowed him at____per cent per annum), agrees to accept such employment from the date and upon the terms hereinafter mentioned, the said employment to continue until it shall be terminated at the time and in the manner hereinafter described.

2. The comprador shall not borrow or lend any money or security for money in the name of the bank without the previous consent in writing of the manager of the bank, for the time being, at__________.

3. The comprador shall be faithful and just to the bank in all his dealings and transactions, shall keep the secrets of the bank, and shall do his utmost to extend and promote the business and prosperity of the bank.

4. The comprador shall reside at__________aforesaid and shall attend to the business of the bank in that city and shall not absent himself from such duties without the previous consent in writing of the bank.

5. The comprador shall receive and take charge of all moneys, securities for money, and treasure that shall be paid or delivered to and received by the

bank or by the comprador for the use of the bank and shall be responsible for the same and for the safe custody thereof and for the touch of all gold and silver, and the character, genuineness, and quality of all moneys, coins, and gold and silver bullion which he shall, on the account of the bank, purchase, or receive, or pay, or ship to or from other places as such comprador, and he shall be answerable for the payment on the days when they shall become respectively due, of all native bank notes or orders, and all native bills, drafts, and other securities other than debts and obligations due, or to be performed or fulfilled by Chinese Government authorities, national, provincial, or otherwise, which he or his assistants or servants shall receive on account of the bank. Only such persons shall be considered Government authorities who happen to be in active service or performing official functions. Expectant officials or such as possess an official rank without holding any office are not to be considered as included among those who are called authorities under this clause.

The comprador shall also be responsible for the due fulfillment of all exchange contracts which the bank shall close with natives introduced by or effected through the medium of the comprador.

6. The comprador shall also be responsible for the repayment or redelivery of all moneys, securities for money, or treasure, from time to time deposited by the bank for its account in native banks or hongs in the city of__________and in other cities and towns in the Provinces of__________.

7. Neither the comprador nor any member of the comprador staff shall keep accounts with, or transact business for, or disburse moneys for, or make any advances of money to, any of the foreign employees of the bank in __________, or elsewhere, except with the consent in writing of the manager of the bank in __________.

8. The comprador, at the close of each day or at such other time or times as the manager of the bank for the time being at __________ may require, shall render an account of or pay over to said manager all such moneys, coins, gold and silver bullion, bank notes or orders, and other security for money, sycee, and treasure as he may, or ought to, have received as said comprador.

9. The comprador shall at his own expense provide and permanently maintain for the carrying on of the business of the bank at __________ the following servants: One assistant comprador, bookkeepers, assistant bookkeepers, office shroffs, market reporters, sycee examiners, money collectors, and coolies. Should it be expedient hereafter to increase the number of the Chinese assistants or servants employed in the bank, the wages of all such additional assistants or servants shall be paid by the bank, but if they be engaged with the approval of the said comprador they shall be deemed to be employed by him and he shall be held responsible for their acts and defaults in like manner as if they had been named or designated in this agreement.

10. The comprador shall pay, make good to the bank, save harmless, and keep it indemnified from and against all losses and embezzlements and damages which the bank, at any time hereafter during the continuance of this agreement, may sustain, pay, incur, or be put to at __________ or elsewhere in China by or through the act or default of the said comprador, or of any substitute or assistant of his or by or through the act or default of any of the said staff.

11. The entries in the books of account kept by the manager or other foreign officer of the bank ____________________ and the account rendered by the comprador to the bank at __________, of and relating to the transactions of the bank, shall be conclusive evidences against the comprador in any court of justice of such transactions, and no further proof shall be necessary on the part of the bank than the production of such books and accounts.

12. In consideration of this agreement, the said comprador shall be paid by the bank the monthly allowance of __________ taels and a commission of ____ per cent, equal to __________ taels per 1,000 taels, for drafts or telegraphic transfers on __________, __________, and other places sold and bought by the bank through the medium of the said comprador and a commission of ____ per cent on loans and deposits and for transactions on gold currency through the comprador, and he shall not be entitled to any further allowance or commission from the bank.

13. The contract is to begin on the ______ day of __________, one thousand nine hundred and ______, from which day this agreement takes effect and it is furthermore agreed that either party is at liberty to terminate this contract

after ------ years' duration provided ------ months' notice of withdrawal be given.

14. This agreement is written in the English and Chinese languages, but the English version alone shall for all purposes be considered and taken as the original.

15. As witness the hands of the bank and the hand and seal of the comprador the day and the year first above written.

Signed by the ------------------, Bank in the presence of ----------------.
[Signed.] --
Signed and sealed by the above named ----------------------.
[Signed.] --
This agreement having been read over and explained to him, he acknowledged that he understood the same in the presence of --------------------.

CHINESE PRODUCTS OF INTEREST TO AMERICANS.

By Commercial Attaché Julean Arnold.

INTRODUCTION.

The wonderful wealth of China in natural resources and raw materials has only within recent years attracted the serious attention of Occidental peoples. The Chinese themselves have not appreciated the potentialities in the markets of the West for the many products that their country has to offer. Foreigners have had to come to China to uncover the wealth of the country in mineral, vegetable, and animal products. They have had to put their organizations in the field, with facilities for financing the trade, for assembling and preparing the products to fit the needs of the foreign markets, and for the shipping of them to their destinations. The Germans, prior to the war, were more active in searching out and developing new possibilities in Chinese products than were other foreign peoples. It is estimated that before the beginning of hostilities 75 per cent of China's export business to the United States, exclusive of that in silks and teas, was in the hands of German houses. Very little of this business was handled by American concerns. Much of it was not even credited to China in American import returns, as the goods went to the United States via Europe. The Germans are not at present a factor in the China market. The war has extended greatly the markets for Chinese products in the allied countries, and Japanese, British, and American merchants control this business now.

It has been unfortunate, indeed, for China that the nation has not been in a position to take full advantage of the marvelous opportunities created by the war as regards foreign markets for its products. Lack of ships, internal disorders, absence of trained native organizations, and the failure to give the country a uniform currency have all militated against China's reaping a harvest in returns and obtaining results that might have been 10 times as great as they have actually been. In spite of these unfavorable conditions, however, trade has expanded enormously during these years, indicating what might have been attained if conditions had been more favorable. One has only to contrast Japan's position to-day with that of China to appreciate what China might have gained. Japan at the beginning of the war was a poor country with a formidable national debt. But it was prepared to reap all the advantages that the war could offer, for it had ships, it had business organizations capable of handling and developing foreign trade, and a Government ready to help, it had internal peace and order, and it had a uniform and stable currency. Although poor in natural resources, as compared with China, it has risen from a debtor to a creditor nation, and to-day finds itself with an enormous surplus of gold. It has not only developed its own resources, but has come to China and is deriving from the resources of China profits that the Chinese themselves might have made. Japanese merchants in China, with preferential freight rates on their Government-subsidized ships, are enabled to ship more cheaply and to command more shipping space than can other foreign merchants in China with their present dearth of tonnage. A good deal of Japan's increased trade during the war was in handling America's trade with China.

If the American manufacturer desires to become a factor in the export trade of China with advantage to himself, he will put his own organization in the field; in fact, he will be obliged to do so if he would protect his own interests. America is finding that it needs the vegetable-oil products of China in huge quantities. Bean oil, wood oil, rapeseed oil, peanut oil, etc., which a few years ago were not associated with China in the minds of the American merchant, are to-day necessities, and the total trade in them amounts to nearly $100,000,000. American manufacturers and importers will pay dearly for these products unless they can handle them through their own organizations and on their own ships. The same is true of China silk, tea, cotton, vegetable tallow, gallnuts, hides and skins, furs, rugs, wool, egg products, straw braid, peanuts, tobacco, antimony, tin, and tungsten, of which the aggregate exports to the United States exceed those to any other country. If Americans are to share fully in the advantages of China's trade—in fact, if they would not see the greater part of the profits reaped by others through whose hands the business passes—they must put their organizations into the field, do the business through their own banks on dollar exchange, and transport the products in their own ships. The exportation of Chinese products has developed into a big trade, but it is small indeed as compared with its potentialities. Railways, roads, a stable currency, and internal peace in China will open to the world a storehouse of mineral, vegetable, and animal products of incalculable value. The United States should and probably will continue to be China's greatest customer.

The writer will endeavor, in the present chapter, to give an account of the principal products that are available in China for shipment to American markets. It is not claimed that the list and the description are complete or without inaccuracies. Reliable statistical and descriptive data regarding China's products are difficult to secure.

The tael valuations for 1918 have been converted into gold on the basis of 1 tael=$1.193 United States currency. The American importer must, however, bear in mind that the value of the silver tael, the unit of currency in China, has fluctuated during the past few years to an extent that may appear almost unbelievable to the person not familiar with currency conditions in China. Ordinarily, the value of the silver tael in American gold is about $0.65 to $0.70. On October 1, 1919, the tael was worth in United States gold $1.3468. The purchasing price of the silver tael in China is no more with the tael equivalent to $1.35 gold than it was when the tael was equivalent to $0.65 gold; this means that the American buyer who carries on his transactions in or through gold gets for the same amount of money, under present prices, only one-half of what he could get when exchange was at 65—less, in fact, for prices expressed in silver have actually advanced, in addition to which trans-Pacific freights are much higher now than they were in 1916. On the other hand, the Chinese buyer of American products buys an article to-day for 10 taels (equivalent to $13.50 gold) for which in 1916 he would have had to pay 20 taels, with the gold price the same. Thus it is apparent that the silver-exchange situation in China is an enormous factor in foreign trade.

The ton measurement used in this chapter is the short ton unless otherwise specified. Fifteen piculs in Chinese measurement are equivalent to 1 short ton.

For fuller information readers are referred to articles previously published in COMMERCE REPORTS, to the Chinese Customs Returns of Trade, and to certain material mentioned in the text. The American consular service in China, which has developed into a very energetic and efficient trade-intelligence organization, is always at the service of the American business public.

MINERAL PRODUCTS.

ALUM.

Alum is used in China for clarifying water, as a mordant in dyeing and tanning, and in sizing and whitening paper. China produces a high quality, reputed to be equal to the best Roman alum. Its production is not confined to any particular section; it is found in a number of Provinces in different parts of the country. China exported about 13,000 tons during 1916, principally to Japan for use in dyestuffs. In 1918 the amount was 2,684 short tons. Wenchow and Ningpo are the principal ports of export.

ANTIMONY.

Antimony is used for making type metal and Babbitt metal. Since the outbreak of the war large quantities have gone to the manufacture of shrapnel shells. China at present supplies the greater part of the world's demand. Sixty-two per cent of the American imports of antimony in 1916 came from China. It is produced in Hunan, Kwangtung, and southwestern China, 95 per cent coming from Hunan, which possesses the purest ores, practically free from arsenic and carrying from 20 to 64 per cent of antimony. Smelting is done at Changsha, Hankow, and Wuchang. The Wah Chang Co. (Chinese) owns the French patent rights for Hunan for the Herrenschmidt process for the treatment of low-grade sulphide ores and also has a Chinese Government monopoly for a limited term of years for producing regulus in Hunan Province. Antimony crude (concentrated antimony sulphide containing between 65 and 70 per cent of antimony metal) is the usual form in which antimony is marketed in China. The regulus assays at 98 to 99.8 per cent pure. In 1918 China exported 15,853 short tons of regulus, 1,880 tons of crude, and 529 tons of ore. The ports of export are Hankow, Shanghai, and Hongkong. The regulus is shipped in boxes, 13¼ pounds to a box. For fuller reports the reader may be referred to F. N. Cole's articles in the American Mining Journal and various articles in Commerce Reports.

ARSENIC.

Arsenic bisulphide and arsenic pyrites in combination with tin are found in Hunan, and arsenic in the form of orpiment occurs in the northwestern part of Yunnan.

ASBESTOS.

Consul Baker reports that asbestos is brought to Chungking from deposits in Szechwan Province at a cost of 75 cents per 100 pounds. It is mined in Manchuria by a Japanese company, and is found also in northwestern Kwangtung and in Hupeh Province. Most reports mention the product as of short fiber. Tientsin, in recent years, has developed a considerable export trade in asbestos prepared by the Tientsin Asbestos Co. from the native product.

BORAX.

Borax is found in China in Kansu, Anhui, and Tibet, most of it coming from the lakes of Tibet. The Chinese use it in glazing crockery, in soldering metal, and as a flux for metals.

COAL.

For the past 20 years the world has heard marvelous stories of China's vast wealth in coal, yet China, up to and including 1917, imported more than it exported. The statistics for 1918 show 1,708,149 tons exported and 1,075,057 tons imported. According to Mr. V. K. Ting, Director of the Geological Survey of China, a minimum estimate of China's wealth in coal indicates that it is sufficient to supply the world's consumption at its present rate of 1,000,000,000 tons a year, for a period of 1,000 years. Probably no other statement made concerning China would demonstrate more forcibly than this the backwardness of the country in modern industrial development. Coal is known to occur in every Province in China. Shansi, Chihli, Shantung, Honan, and Manchuria constitute probably the richest coal-bearing regions in China. Shansi and Hunan are particularly rich in anthracite, Shansi being regarded as richer in anthracite than Pennsylvania. Most of the coal now worked in China is, however, of the bituminous variety. Mr. Ting estimates the annual production (1915) at 15,000,000 metric tons for the whole of China. The estimate for 1918 can probably be placed at 20,000,000 tons. The mines worked according to modern methods produce half this amount. The Fushun mines in Manchuria now (1918) produce 8,000 tons a day. The Kailan Mining Co. (British-Chinese), in the Kaiping district, Chihli, has a daily output of 14,500 tons of bituminous coal. During 1917 it shipped from Chinwangtao 1,442,000 tons, half of which went abroad. The Pinghsiang collieries in Hunan have a daily output of 3,000 tons of semianthracite coal and one-half this amount of coke. These are the only large coal mines in China not dependent upon railway transportation. Modern transportation facilities and more workable mining laws are two factors necessary to the development of China's vast stores of coal.

COPPER.

China appears to be poor in copper ore. Yunnan furnishes the only substantial source of supply; it provides, however, far less than is needed for the copper currency of the country. Szechwan and Kansu are said to contain copper deposits, but to what extent is unknown. Southeastern Manchuria is mining copper, in connection with which a Japanese company has erected a copper smelter at Antung.

GOLD.

Mr. V. K. Ting, Chinese Government Geologist, reports on gold as follows:

> The gold deposits may be divided into four classes—(1) recent alluvium, (2) ancient alluvium, (3) Tertiary sandstone, (4) quartz veins in pre-Cambrian gneiss and metamorphic rocks. The first is by far the most important, as all the productive mines of Manchuria and Outer Mongolia belong to this class. The four great rivers in Manchuria, the Amur, the Yalu, the Tumen, and the Liaoho, drain large areas covered by gneiss and granite whence the gold has been washed down, together with other products of erosion, into the tributary valleys. All the great gold mines in Heilungkiang Province are situated on the right bank of the Amur River, those of Kirin along the tributaries of the Yalu and the Tumen, and the mines of Mukden in the basin of the Liaoho. In Outer Mongolia they are in the valleys of the Iro, the Shara, and the Kurduri, all of which are tributaries of the Selenga, which flows into Lake Baikal. Similar alluvium is found in the Upper Kangtze between Yunnan and Szechwan, in the southern tributaries of the Tarim in Turkestan, and in the smaller streams in Shantung, Honan, and Jehol.
>
> As to the second class, we have a unique example in the Wali gold mine on the banks of the Yalung River in Szechwan. The Tertiary sandstone known as the Hanhai formation has a wide distribution in Turkestan and Kansu, and in the Kwenlun and the Nashan it is often auriferous. In Szechwan, Kiangsi, Hunan, Fukien, north Chihli, and Shantung the gold-bearing quartz veins in the gneiss and phyllite are often worked in a small way. The famous Maha mine in Szechwan and the Pingkiang mine in Hunan both belong to this class. The alluvium worked in Manchuria contains, on the average, 1.07 pennyweights of gold per ton, while quartz veins are not considered workable when the gold content is much less than 6 pennyweights per ton.
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> In 1915 the total production was about 200,000 ounces—120,000 ounces from Manchuria and 60,000 ounces from Outer Mongolia and the rest from Chihli, Hunan, Shantung, Kansu, Turkestan, Szechwan, Yunnan, Kiangsi, and Honan.

Consul Moser, stationed at Harbin, reports that $3,000,000 worth of gold is exported annually from gold mines of northern Manchuria, which are only partially worked.

IRON.

One reads in Chinese history that several centuries before the beginning of the Christian era the banners of China were carried to the Caspian Sea, there to meet the banners of Rome, and that the way was thus paved for China's silks and iron in European markets. The Shansi iron industry is claimed by a Chinese writer to be the oldest in the world. Like many others of the great resources of China the country's deposits of iron ore have been but little developed. Dr. H. Foster Bain, assistant director of the United States Bureau of Mines, who spent some time in China investigating its mineral resources, estimates that China has 400,000,000 tons of iron ore available and suitable for modern furnace reaction and an additional 300,000,000 tons that might be treated by native methods. The iron-ore deposits are now controlled by Chinese or Japanese interests, the Chinese Government aiming to control those that are not already mortgaged to Japanese interests. The Penchihu furnaces are producing in 1918 about 75,000 tons of pig iron. The Anshanchan Iron Works in Manchuria, operated by the South Manchuria Railway, have an annual output of 150,000 tons. The Han-Yeh-Ping furnaces are probably producing an equal amount, which will be increased when the company's furnaces are in operation at Tayeh. Thus, a fair estimate of China's production of pig iron (1918) would seem to be about

500,000 tons a year, including the output of numerous crude native furnaces, about 50 per cent of which are said to be in Shansi. The Han-Yeh-Ping Co. took out, in 1917, 540,000 tons of iron ore. During 1917 China exported to Japan 170,000 tons of pig iron, valued at 5,300,000 taels, and 303,500 tons of iron ore, valued at 1,000,000 taels. One tael, in 1917, was equal to $1.08 United States currency.

JADE.

China exhausted most of its own supplies of jade stone many centuries ago and now depends upon Burma for the stone. The chief centers for jade carving are Canton, Peking, and Soochow. Books on Chinese art give full descriptions of yade ornaments and art pieces.

LEAD.

The principal lead mine in China is the Shuikoushan, in Hunan, owned by the provincial government. The official records of the output of this mine over a period of 20 years show that it produced 50,000 tons of lead and 126,000 tons of zinc concentrates. It employs 5,000 laborers, who receive from 12 to 30 cents Mexican per day. The Kungshan mine in Tungchwan, Yunnan, is the only other large lead mine in operation in China. In the Far Eastern Review for December, 1917, there is an article on "The Shuikoushan Zinc and Lead Mine," and in the October, 1916, number there is one entitled "The Shuikoushan Lead Mine in Hunan." China exported about 100 tons of lead in 1917.

White lead is made in China by taking sheets of lead, rolling them as one might a paper, placing the roll in a vessel with rice vinegar, and applying a slow heat, which gradually breaks down the lead into a powder. After the lead is carbonized, the powder is dried, pressed into cakes, and sold. It is often adulterated with gypsum, lime, or flour. It is mixed with wood oil for common paint, sold for a cosmetic, etc. Very little is exported.

LIMESTONE—POTASH—QUICKSILVER—REALGAR.

China is rich in limestone deposits, especially in Chihli Province.

In 1917 the customs returns of trade show exports of 1,000 tons of potash from China, the bulk from Kowloon in the Canton district.

Quicksilver is mined in western Hunan, Kweichow, and Szechwan, but the output is small.

Arsenic bisulphide from Yunnan and Hunan to the extent of about 600,000 pounds was exported during 1917.

SALT.

The salt industry in China is under Government control and subject to a high Government tax. Thus salt does not enter into the export trade. There are three sources of production—sea, lake, and well. Solar evaporation alone is used in the first two. In the Szechwan salt wells, borings have been made through solid rock to a depth of 3,000 feet. The mouth of these wells will be no more than about 12 inches in diameter. Generations are required to reach the extreme depths. The drills are dropped down on ribbons of bamboo.

The brine is brought up through bamboo tube buckets, some 80 feet long and 4 inches in diameter, by water buffalos or oxen turning the huge whim or drum, which winds up the bucket. Some of these drums are 60 feet in circumference and 12 feet in height. Salt can be exported only under special Government permit.

SILVER.

In the absence of a geological survey, it is impossible to describe authoritatively the mineral resources of a country. China does not appear to possess rich silver deposits. This mineral seems to be confined for the most part to Yunnan and Western Kweichow, where, according to report, it is well distributed.

SOAPSTONE.

At Foochow, Wenchow, Laichow (Shantung), and in Kweichow and Shensi Provinces, as well as in other places in China, soapstone resembling colored marble is found and carved into ornaments, which find a considerable sale.

TIN.

More than 13,000 short tons of pig tin, valued at 12,204,877 taels, were exported from China in 1917, bringing China to the fore in aiding to supply the world's tin consumption. In 1918 the amount was 9,721 tons, valued at 11,009,067 taels.

More than half of this went to the United States and nearly all of it was exported from Yunnan Province, although Hunan and Kiangsi Provinces also possess valuable tin deposits. Most of the Yunnan tin comes from the Kotchiu district, and, according to Mr. V. K. Ting, Chinese Government geologist, most of the ore is in residual clay formed by decalcification (more or less superficial) of limestone and can be concentrated by repeated washings. The annual output of this district is about 7,000 tons. The silver exchange situation in China—with the silver dollar almost equal in value to the gold dollar, while the Straits silver currency has a fixed relation to that of gold—militates seriously against the tin trade of China, as prices of tin are fixed on a gold basis by the Straits Government. For example, although the price of tin in New York at the end of 1917 was more than twice what it was two years before, the amount realized in silver with the present exchange gave the Chinese tin exporters no more in silver than they had received two years before. Furthermore, the taxes on tin in Yunnan are burdensome and not encouraging to the development of the industry. The tax for railway construction purposes amounts to 10 per cent on the gross value of the tin, which is fixed at $1,600 Mex. per ton for tax purposes. In addition, there are other burdensome impositions.

The Yunnan Tin Trading Co. operates a modern smelting and ore-dressing plant at Kotchiu. Yunnan tin is all sent to Hongkong, from which port it is exported to the United States, Great Britain, France, etc., the United States taking more than 50 per cent.

TUNGSTEN.[1]

Tungsten deposits are found in the southern part of China below the thirtieth degree of north latitude. The principal districts are in the

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[1] This section on tungsten is from a report by Vice Consul Charles E. Kline, Shanghai.

Provinces of Hunan (southern part); in Hangchow and its vicinity; Kiangsi (southern part), in the Lungnanhsien, Tinnan, Sinfenghsien, Nankanghsien, and Taiyu districts; and Kwangtung (eastern part) in the Wuwha, Hingninghsien, Kaiyung, Heifung, Lukfung, and Wailia districts, (northern part) in the Namyung, Lokchong, Chihing, and Chukiang districts. The districts mentioned are only those in which operations are now being carried on, there being other large areas in which tungsten deposits are found (in the southern parts of the Provinces of Hunan and Kiangsi and the northeastern part of Kwangtung) that have not as yet been opened.

Chinese tungsten, in the form of wolframite, occurs either as sands or pebbles in the streams or in small veins in the granitic rocks. The former deposits are sometimes accompanied by cassiterite or magnetite, or both, usually mixed with quartz sands, the latter in the form of veins ranging in thickness from a fraction of an inch to 2 or 3 inches. Although both kinds of deposits are found in many widely scattered regions, they are never found in large quantities in any particular area. For this reason, and also because this industry is of very recent origin in China, no modern systematic methods have been inaugurated to explore this field.

Rakes, toms, and pans are used for washing the stream ores, while in the case of vein ores, hand hammers, drills, and sometimes black powder are used for extracting the valuable content of the ore. With the exception of a few places in Hunan and Kwangtung, nearly all the mining is carried on by farmers, who work during their spare time after their farming labor is completed. But during the early part of 1918 the industry had grown to such an extent that many of the farmers suspended their farm work and devoted themselves entirely to tungsten mining.

The concentrates offered on the market are rather impure, and usually have to be reconcentrated for export purposes. For this purpose a few native, as well as foreign, companies have sprung up, each having a concentrating plant of some sort. The Yui Hwa Mineral Supply Co. has a fairly well-equipped plant, containing shaking screens, jigs, rocking tables, and round revolving tables for concentrating its own ores and those collected from mining centers; and it is in a position to produce concentrates of 67–72 per cent WO_3 with about 5 per cent of manganese and containing but a small amount of impurities such as copper or tin.

The farmers take their concentrates to the local market where they dispose of them to local dealers at the best prices obtainable. The local dealers, in turn, sell them to licensed collectors from the ports. The port dealer has to pay a tax to the Government, and, after shipping the concentrates to his own port, he is under obligation to export them within a certain period, usually three months. If he fails to do this, he is obliged to get another license for the same ore or forfeit the ore to the Government.

According to the statistics of the year 1918, as prepared by the Chinese Maritime Customs, the total exports of tungsten ore amounted to 10,365 short tons. However, the total production for the year 1918 exceeded this figure, there being large quantities left in the mining districts which could not be sold by reason of the cessation of hostilities in Europe. The working of the desposits continued, nevertheless, until February, 1919, when the operators saw that the returns would not even pay their workmen. It is stated that mining operations can not be resumed unless the market price is high enough to enable operators to pay each workman 20 tael cents per day for his labor.

It is estimated that all the mines in the above-mentioned districts are capable of equaling their production during the year 1918 for more than 10 years. Future shipments abroad will be governed entirely by the demands of the American and European markets.

ZINC.

The war has affected adversely the zinc trade of China, because of high freight rates and unfavorable silver exchange. The exports of zinc spelter dropped from 38,000 piculs (1 picul=133⅓ pounds) in 1915 to 2,100 piculs in 1918, and of zinc ore from 140,000 piculs in 1915 to 2,700 piculs in 1918. The main source of supply at present is in Hunan at Shuikoushan, which, in 1914, had an output of 4,000 tons of lead and 12,000 tons of zinc. Zinc is also widely distributed throughout Kweichow, Yunnan, and Szechwan Provinces.

ANIMAL PRODUCTS.

BRISTLES.

Pigs are raised everywhere in China, and pigs' bristles have become an important article of export, amounting to 4,700 tons a year, valued at nearly $8,000,000. Bristles that are long, thick, stiff, bright, wiry, and clean command the best prices. The white are preferred. Each hog yields about 1⅓ pounds of bristles. The yield of each hog is tied in a bundle, placed in water for a few days, then scraped off, combed to remove impurities, sun-dried, steamed, and then sorted into bundles about 1½ inches in diameter, with bristles of uniform length. Most of the work of cleaning and tying the bristles is done by women, who receive about 5 or 6 cents a day. Buyers are very particular about the bristles being well cleaned, of uniform length and color, and the bundles solid. This is apparent when it is considered that prices vary from 20 taels to 300 taels per picul (133⅓ pounds) depending on the assortments. The collecting season is from November to April, as bristles are soft and useless for the trade during the hot months. This accounts for the fact that the main producing and shipping centers are north of the Yangtze. For export the bristles are packed in boxes containing 1 picul to a box. The ports from which they are shipped are, in the order of their importance, Tientsin, Chungking, and Hankow. Manchuria and Shantung are increasing in importance in this trade. Most of the bristles are shipped to the United States, Great Britain, and France. China offers an excellent field for the manufacture of brushes. It is surprising that greater developments in this direction have not taken place.

BUTTON SHELLS.

During the past few years buyers have come to China to purchase shells for use in the manufacture of pearl buttons. Such shells are found in the rivers in the Tientsin district, in the lakes and rivers in

Central China, and in certain sections of South China. The prices of the shells have advanced from two to five fold. Machines for cutting the blanks are being set up in China, and plans for the manufacture of the buttons in China are projected.

CATTLE.

China is not considered a cattle country. It has never developed a dairy industry, nor are the Chinese people beef eaters, except the Chinese Mohammedans, of whom there are about 20,000,000 in northwestern China. Cattle are, however, raised as farm animals, and in some sections as beef—principally for export or for the Mohammedan population. Consul Moser, at Harbin, states that in northern Manchuria there are about 400,000 cattle and that region is capable of marvelous development as a cattle country. Northwestern China, Szechwan, and Shantung are the principal producing centers. Many cattle are driven from the west across Central China to Shantung, where they are killed for beef for export. Shantung, within recent years, discovered the cattle industry to be profitable, and it is now estimated that there are 600,000 head of cattle in that Province. Prior to the war Shantung shipped about 75,000 head a year. The United States Army in the Philippines secures its beef from Shantung. Western Szechwan and southwestern China also raise cattle in considerable numbers. Shantung ships out of the Province 30,000,000 pounds of beef annually. Wuchow, on the West River, exports from 25,000 to 50,000 head a year. In southern Fukien the cattle industry thrived at one time and gives promise of renewed development, as there are splendid grazing lands in that section. Inner Mongolia and Manchuria possess enormous stretches of good grazing lands and offer notable opportunities for the development of the cattle industry on an enormous scale. One reason, probably, why cattle raising and dairying have not developed into real industries in China in recent years has been the lack of adequate means of coping with rinderpest and anthrax.

DOGSKINS.

The Chinese customs reports as follows:

> Dogskins are made up into rugs for sleeping mats and clothing. The hair is long and thick and of all colors, from a rich black through all shades and combinations of brown, yellow, and gray to pure white. The last are the finest. There are thousands of dog farms dotted over southwestern Manchuria and eastern Mongolia where from 20 to some hundreds of dogs are reared annually as a source of wealth; for example, a bride will have as her dowry a number of dogs in proportion to her father's means.
>
> Nowhere else in the world are found such splendid dogskin—for size, length of hair, and quality—as the extreme cold develops there. A full-sized robe is 80 by 68 inches, taken from eight dogs. The dogs are cruelly strangled when 8 months old, in midwinter, the coats being then at their best.
>
> The export in 1916 was 805,000 pieces.

EGGS AND CHICKENS.

Although the egg trade has assumed a position of importance within recent years in the foreign commerce of China, it can not be said that there is such a thing as an egg or poultry industry in the country. The Chinese are an agricultural people, probably to the extent of 75 to 80 per cent of the population. They are gardeners rather than farmers. Nearly every household among the farming population has a few chickens. Various interesting devices are used to supplement nature's way of hatching the eggs. In the north, "kang," a brick or mud stove, serves as an incubator. In the south, layers of heated rice husks and eggs are placed in a tub and changed every day (with 500 eggs to the tub). Old men and women are known to hatch eggs successfully by carrying them in their clothing. Ducks' eggs are hatched in South China by being placed in the mud in the sun. Only chickens' eggs enter into the export trade, although enormous quantities of ducks' eggs are produced and the raising of ducks is an industry. In China they are generally small, requiring from 10 to 12 to make a pound, although Consul Williamson, in Manchuria, tells of eggs there that go 4 to a pound. The Chinese preserve eggs by coating them with a preparation of clay, rice, husks, and salt and then packing them in earthenware jars, sealed up. They will keep for several years, but must be cooked before using. Another method is by using lime. In that case the eggs become hard and turn a dark color; they keep indefinitely.

Chickens and ducks in China are cleaned, salted, stretched flat on a frame of bamboo sticks, and dried. They are placed on the native market in this shape all over China.

Eggs are produced in China wherever there is human habitation. In collecting them for the foreign trade the question of transportation naturally figures largely. Throughout the Yangtze Valley and the regions generally reached by water and rail transportation eggs enter into foreign trade—the more populous the region tapped by rail or water transportation the greater being the egg production. It is estimated that Shantung Province furnishes, on an average, a million eggs a day during the spring months for foreign trade. The thrifty Chinese sell rather than use the eggs they get. Twenty years ago eggs could be purchased in Shantung at the rate of seven for 2 cents Mex. To-day they are difficult to purchase at less than 1 cent Mex. apiece. In Shansi, removed from rail and water transportation, eggs sell three for 1 cent Mex.[1]

During 1918 China exported 209,867,000 preserved and fresh eggs; 1,743,200 pounds of frozen eggs; and 38,580,933 pounds of egg yolk and albumen. The figures for frozen eggs and for preserved and fresh eggs represent great decreases as compared with other recent years. China's exports of egg products for 1918 were valued at more than $11,000,000. Shanghai, Hankow, Nanking, Tsingtau, Swatow, and Tientsin are the principal ports from which eggs and egg products are shipped. There are factories at these and other places in China for the preparation of the albumen and yolk. Prices of dry egg albumen in Tientsin for 1917 ranged between 90 and 100 taels per picul (133⅓ pounds).

FEATHERS.

China exports annually about 15,000 tons of duck, goose, and other feathers. The Yangtze and Canton regions are the centers of this trade, with Shanghai and Hongkong as the ports of shipment. Foreign importers are obliged to clean, grade, and pack the feathers in preparation for shipping. Regular establishments have been created for the sorting, grading, steaming, drying, and baling of feathers for export. They are pressed by hydraulic power into bales of 200 pounds net. With good rice crops throughout Central and South China, large supplies of feathers are assured, because the farmers then raise more chickens and ducks, and, in addition, there is more wild game. In China the wing feathers of the eagle are made into fans. The egret, once common in Szechwan and Fukien, has been almost wiped out by the demand for its feathers. Kingfisher feathers are used in ornamental jewelry, generally set into silver ornaments. Before the fall of the Tsing Dynasty there was a big demand in China for peacock feathers, used for decorative purposes on the hats of officials of certain rank. An innovation in China is to be found in the pheasant farms of Kwangtung, where golden and silver pheasants are domesticated in great numbers that their feathers may be used for export.

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[1] See footnote on p. 124.

FISH AND FISHERY PRODUCTS.

Although China exports annually about 15,000 tons of fish and fishery products, its imports, on the other hand, amount to 100,000 tons, valued at 14,000,000 taels. Everybody in China eats these foods. Every stream or pool of water, no matter how small, seems to contain fish or fishery products of some kind fit for Chinese consumption. One encounters persons fishing with otters, cormorants, nets, poles, weirs (bamboo fish traps), trollers, and, seemingly, in every other way that has ever been devised. The principal article of export is cuttle fish, the bulk of which goes from Ningpo, and the total exports of which amount to $400,000 a year.

FROGS' LEGS.

China abounds in waterways, canals, pools, and rice paddies, creating a condition favorable to the production of frogs. Edible frogs (*rana esculenta*) abound as far south as Fukien. They can be purchased for about 20 cents a hundred. It remains for some enterprising individual to find a means of exporting this delicious product to American and European markets, where there is a greater demand than in China.

GAME.

China abounds in wild game, even throughout the densely populated Yangtze Valley regions. Good feed is plentiful in the cultivated areas, since the land is under cultivation just as long during the year as climatic conditions will permit. Geese come from the north in vast numbers to winter in China. Ducks are most numerous; in fact, China may be said to be the duck hunter's paradise. The mallard, yellow-nib, sheldrake, several varities of teal, white-eyed, scaup, tufted, and pintail are among the wild ducks found in China, the teal being probably the most common. The bustard, pheasant, snipe, quail, partridge, grouse, plover, and sage hen are also found in varying abundance. These are all sought after now by a British cold-storage company that has erected plants in various parts of China and operates a line of refrigerator steamers. Prices, which were ridiculously low before the inauguration of this business, have in some cases and localities advanced four and five fold, though they are still low from an Occidental point of view.

Deer are still plentiful in China. Wild boars are found in good numbers. Tigers, leopards, foxes, wolves, etc., are found in certain parts of the country, but in decreasing numbers.

Provision should be afforded on American trans-Pacific steamers for refrigerator accommodations, so as to permit the American public to obtain China's game, poultry, egg, and meat products, now so badly needed.

HAIR, HUMAN, AND HAIR NETS.

The exports of human hair from China have averaged about 3,000,000 pounds a year for the last 10 years. With the revolution in 1911, the cutting of queues was very general throughout the south and many men in the north parted with theirs, although the majority of the male population north of the Yangtze still wear their queues. The supplies of hair are augumented from the combings of the women, from barber-shop cuttings, and from women who in times of stress dispose of their hair. It is exported under three grades—(1) solid dressed clubbed lengths, (2) stumps, and (3) combings. The first grade is dressed in solid lengths of from 8 to 36 inches with 2 inches difference between each length. The second grade consists of short hair under 15 inches, also in small bundles. The third takes short, tangled hair, and combings. Before being shipped to the United States all hair must be officially disinfected. Consul General Anderson reports that the Hongkong exporters require that the hair be sold in assortments, usually consisting of 135, 50, 35, 25, and 10 pounds of the various grades, so that dealers may not have left on their hands certain grades for which there is no demand in the market to which the other grades are shipped.

Hair nets were first made in Shantung under German supervision. Large quantities of the hair exported from China are sent back to Shantung, after treatment and preparation, for making the delicate hair nets used by women to keep their hair in place. Labor is cheap and plentiful in Shantung and has become very adept at making these nets. The hair, before being shipped to Chefoo, is bleached with peroxide thinned with acid and is boiled in dye, giving a hair softer and of finer texture than the coarse product originally shipped from China. The Chinese in Chefoo are importing the peroxide and preparing the hair directly for the making of the nets, but the resulting nets are of a poor quality as yet. There are indications, however, that the Chinese-dyed hair will improve and soon become satisfactory to the trade. The nets are made up of different colors. This trade has developed to such an extent in Shantung as to amount to upward of a million dollars gold and to involve the employment of more than 100,000 people. Most of these nets are now shipped to the United States.

According to Consul General Sammons, at Shanghai, the hair of certain animals, such as the goat and the yak, is mixed by the manufacturers with the human hair. It is stated that for this purpose the yak's tail is valuable because of its length and whiteness, and when mixed with other shades it produces the desired silvery effect. Tientsin exported 330,000 pounds of goat's hair during the year 1917. Six hundred tons of horse hair (manes and tails) from Tientsin and Dairen and 400 tons of other animals' hair were exported from China during 1917. The uncleaned refuse of pigs' bristles, constitutes a substantial article of export under the name "hogs' hair." It is used in the upholstery trade. It is disinfected by steam before shipment to the United States and is press packed in bales, four to the ton. Consul General Sammons states that Shanghai can supply each season between 2,000 and 3,000 tons, and Hankow and other Yangtze ports can furnish considerable quantities.

HAMS.

More than 4,000,000 pounds of hams, valued at 600,000 taels (about $716,000 United States currency) were exported from China during 1918. Great Britain was the principal importer. Hankow, Shanghai, Hangchow, and Yunnan are the ports from which hams are exported. Yunnan hams are reputed by the Chinese to be of the best quality, followed by the Chekiang and Hunan products. The Chinese consume vast quantities of hams and pork. Pigs are raised everywhere in China, but in Yunnan, Hunan, and Chekiang they are better fed than elsewhere. Shanghai, the "New York or Paris of China," is a big market for the choicest Chinese hams; consequently importers are able to secure quantity and quality there.

HIDES, SKINS, AND FURS.

China's exports of hides, skins, and furs for 1918 are shown in the following table. The values are expressed in United States currency:

Articles.	Quantity.	Value.
Hides and skins:		
Undressed—		
Buffalo and cow ....pounds..	52,751,601	$16,070,516
Goat ....pieces..	8,940,671	6,883,596
Horse, ass, and mule ....pounds..	3,920,924	783.974
Sheep ....pieces..	716,262	536,450
Dressed—		
Goat (tanned) ....do....	1,076,916	1,620,499
Kid ....do....	131,206	36,796
Lamb ....do....	218,341	254,334
Furs, dressed and undressed:		
Fox ....do....	25,349	171,336
Marmot ....do....	659,416	172,701
Raccoon ....do....	83,217	79,096
Sable ....do....	661	24,145
Weasel ....do....	490,446	121,039
Unclassed [a] ....do....	2,289,880	972,985

[a] Includes antelope, badger, cat, deer, dog, rabbit, squirrel, wolf, etc.

Heavy hides are used for the production of sole leather, machinery belting, suit cases, trunks, etc., and light hides for light shoes and for uppers. Sheep and goat skins are used for the lightest footwear, gloves, fancy goods, upholstery, purses, etc.

Foreign establishments are maintained at Tientsin, Hankow, Shanghai, and Hongkong for the cleaning, grading, and press-packing of hides and skins collected from the producing centers, of which Kalgan and Chungking are important. The Chinese dealers do not attend to these details in a way satisfactory to the foreign buyer. The hides are also subjected to the scientific treatment demanded by the country to which they are exported. Since the outbreak of the war prices of hides have more than doubled. At Tientsin, in 1917, prices of dry, salted cowhides, best grade, ranged from 36 to 48 taels per picul (133⅓ pounds) and of lower grades from 26 to 40 taels, while untanned goatskins ranged in price from 40 to 50 taels for best grades. Tientsin and Hankow are the principal export centers for hides, skins, and furs. Kalgan, on the Mongolia border, and Chungking, on the upper Yangtze, are important collecting centers. Hongkong is the export center for hides and skins from Kwangtung, Kwangsi, Kweichow, and Yunnan. Since the war, increased prices for these products have caused supplies from South China and Indo-China to enter the market. At Tsingtau, although a good many cattle are slaughtered, the exports of hides are small, as the Japanese have established a tannery there and are making leather. There are two tanneries in Tientsin, but they are apparently not successful, partly because of the hard water and excessively dry atmospheric conditions. It is very likely that before many years there will be good tanning establishments in China, sufficient in number to consume China's hide production. China is a heavy importer of leather, the total imports during 1918 amounting to more than $11,000,000, United States currency.

HORNS.

Water-buffalo and ox horns are worked into lanterns, some of strikingly large size and quite transparent. They also find many other uses in China, including the manufacture of combs, shoehorns, and backs of hair, tooth, and other brushes. Prior to the anti-opium campaign, the principal use made of these horns was in the manufacture of opium cups or boxes for packing and storing opium for home consumption. Consul General Hosie (British), in his report on the Province of Szechwan, says that horn lanterns in China are made from the hoofs as well as the horns of animals. He gives a very interesting description of their manufacture.

Deer, reindeer, and mountain-goat horns are valuable in China for manufacture into medicine. Staghorns are particularly valuable, but useful only during a certain time of the year. From the staghorns pills are made that are reputed to have marvelous tonic and rejuvenating qualities.

About a million pounds of water-buffalo and ox horns and a thousand pairs of deer horns were exported during 1918, the latter probably for the medicinal use of Chinese populations abroad.

HORSES.

The Chinese horse is really a pony somewhat after the type of the western broncho. It comes from Mongolia and is known as the Mongolian pony. It is an exceedingly hardy animal, thrives on food on which a western animal would starve, is able to carry heavy loads long distances, and is very useful in many ways. As a racing animal it is characterized by speed and stamina. China exports between 1,500 and 2,000 of these ponies each year.

INTESTINES.

Intestines are imported into the United States from China to the extent of nearly $400,000 worth a year. They are used by packing houses for sausage casings. The intestines are prepared for shipping at Shanghai, Hankow, or Tientsin by being scraped, cleaned, and preserved with salt and salt water, and packed in oak barrels, having a capacity of 2,500 to 3,000 bundles, with about 30 per cent salt. Pig intestines are exported in a dried condition.

IVORY.

Ivory ware is peculiar to Canton. Tusks are imported from Siam and carved with great skill and dexterity by the ivory carvers of Canton, experts being few in number. Canton is famous for its elaborately carved ivory balls, one within another, sometimes to the number of 17, all carved from without.

There are about 40 ivory shops in Canton, according to Consul Tenney. There are, however, only six expert carvers. These work in their own homes and make about $30 Canton currency a month (at present exchange about $25 gold, but usually much less).

LARD.

The customs returns of trade for 1918 indicate that 7,987 short tons of lard were exported, the principal ports of export being Shanghai, Hankow, Hongkong, Wenchow, and Nanking. Most of it went to Great Britain. It is exported in kerosene tins, two to a wooden case, with a total of 78 pounds to the case.

MEATS.

The pressure for supplies of cheap foodstuffs, due to the ever-increasing prices of meats abroad, focused the attention of the western world upon China as a possible source of supply, and this interest took substantial form about eight years ago. The prejudice against Chinese foodstuffs, because of the exaggerated ideas among western peoples of the insanitary conditions in the Far East, together with the skillful use of this prejudice by interests which, for selfish reasons, found it desirable to combat any plans to invite competition from China, militated against the development of the country as a possible source of supply for meats and poultry. Refrigerator companies from abroad have built up their own establishments in China, and meats and poultry are now secured under sanitary auspices and shipped abroad to populations no longer prejudiced against Chinese foodstuffs. Frozen beef, pork, mutton, ducks, chickens, wild game (including ducks, geese, pheasants, snipe, and quail), as well as eggs and egg products, are now established factors in China's export trade. Northern China produces an excellent quality of mutton in large quantities. Beef comes from northern, western, and central China, especially from the northwest, where there are large beef-eating Momammedan populations. It is estimated that Shantung Province alone sends out 30,000,000 pounds of beef a year. Pork comes from Hunan, Kiangsi, Honan, Kiangsu, Anhwei, and Shantung Provinces. Poultry, ducks, and pigeons come in vast numbers from all over the country. China is rich in wild game. A land of rice paddies and fields of cereals—a country where, so far as climatic conditions will permit, the land is never idle—is naturally good wild-bird country. Wild ducks, geese, snipe, quail, pheasants, etc., are found in abundance and are cheap. Thus refrigerator companies with plants in China and with proper refrigerator shipping facilities have no difficulty in securing plentiful supplies.

MULES.

Western China, Shensi, Kansu, and Shansi, as well as southern Shantung and Honan, produce good mules. In western China mules that compare favorably with those produced in the western States of America are not scarce. Buyers for the Allied Armies, especially the British, made extensive purchases of Chinese mules, shipping them from Shantung.

MUSK.

China's exports of musk amount to 500,000 taels a year (more than $650,000 United States currency at present exchange). Most of it comes from Tibet, the home of the musk-deer, from which it is taken. China enjoys a monopoly in this product. At Tachienlu, where it is brought for exchange for other products, it is reckoned that it is worth thirteen times its weight in silver. It is taken from the male musk deer (*moschus moschatus*). Only half of the total output is exported from China; a considerable quantity remains in the country, a good deal of it being used in pills as a remedy for Asiatic cholera. Abroad, it is used principally for the better grades of perfumes. Its scent is the most penetrating and persistent of any known. It lends itself to adulteration, and this fact is taken advantage of to an alarming extent. Dried blood, sand, and the like are used as adulterants. The pods are cut open, a quantity of the pure musk extracted, adulterating matter inserted, and the pods closed with needle and thread.

For further details concerning this interesting product the reader may be referred to an article in the October, 1917, number of the Far Eastern Review, entitled "The Chinese Musk Industry." An extract from this article appeared in COMMERCE REPORTS for January 12, 1918.

SILK.

China is awakening to the fact that, although it gave tea and silk to the world, its supremacy in the world's trade in these products is being contested by those who have learned to understand the changing conditions and are eager to secure this trade by meeting the requirements of the consuming markets. China's realization of this situation is evidenced, first, by the number of modern sericultural schools established throughout the country; second, by the enthusiastic response of the silk interests in China to the suggestions made by the representative of the American Silk Association in a recent visit to China; and, third, by the support given by the Chinese Government to the work of the International Committee for the Improvement of Sericulture in China. In China the selection of eggs has been left to the people who cultivate the silkworms and who have no technical knowledge of sericulture. On the other hand, in Italy, France, and Japan the work of egg selection is entrusted to experts under Government direction. The eggs are examined by the Pasteur system and only healthy eggs selected for propagation. The writer is informed that in China 90 per cent of the eggs examined are not fit for rearing silkworms. With the aid of the International Committee for the Improvement of Sericulture in China, experimental laboratories are being established for the selection and distribution of good, healthy eggs. The Chinese Government recently made a grant of 4,000 taels a month ($4,000 gold) to aid the work of this committee. French, Swiss, British, and American as well as Chinese interests are active in the furtherance of the work of this committee, which has retained the services of a French sericultural expert and bacteriologist who is superintending the production and distribution of healthy eggs.

The American Silk Association sent a representative to China in 1917, who traveled among the Chinese silk growers and producers and, with motion-picture demonstrations, indicated to them the changes necessary in the silk industry in China in order to meet the needs of the American market, which is the greatest importer of raw silk in the world. The United States takes annually $200,000,000 worth of raw silk. Japan did not figure in the silk world in a large way prior to 1870, but to-day the United States is dependent upon Japan for 70 per cent of its imports of raw silk and takes no more than 20 per cent from China, although the better grades of Chinese silk are superior in textile strength and durability to other silks. The Chinese silk producers have been told by the American Silk Association's representative that China must produce better cocoons and more of them and must change the methods of reeling the raw thread so as to meet the needs of the high-speed American looms. Chinese skeins are too long, not uniformly laced, and contain too much gum, so that, while they may be used on the hand looms of China or even on slow machine looms, they can not meet the test of the American loom. During the 1917–18 season the total exports of raw silk from China and the amount sent to the United States were as follows:

Classes.	Total exports.	Exports to United States.
	Bales.	*Bales.*
White steam filature	28,637	10,883
Yellow steam filature	2,867	400
White silks	18,541	9,807
Yellow silks	13,637	136
Tussahs	11,744	6,875
Total	75,426	28,101

Thus, the United States took during the 1917–18 season 37 per cent of China's raw silk exports. During the same season the United States imported from Japan 224,071 bales out of a total export of 257,376 bales, or 87 per cent. Japan takes 50 per cent of China's total export of cocoons, which for the year 1917 amounted to more than 2,000 tons.

Outside of silk circles it may not be generally known that certain breeds of worms produce silk of a bright yellow color. It may also not be known that pongee silk (Shantung silk) is produced by a worm that feeds on oak leaves. In the latter part of the winter the eggs are attached to the leaves of the oak tree, where they are hatched in the spring. Tussah silk is differentiated from tussah filature in that the former is reeled by hand, which means that often a fiber or strand is dropped and an interval elapses before it is caught up (producing an unevenness in the thread), whereas in the steam filature there is more uniformity and accuracy as well as speed.

There are several hundred steam silk flatures in China, most of which are very small. A few, however, employ between 600 and 1,000 operators. Many women are employed in the filatures. Shanghai has 25 steam filatures, employing 20,000 hands. The outlying districts of Shanghai have about 10 more. There are upward of 200 steam filatures in the Canton section. There are 30 steam filatures in Szechwan, where sericultural schools have been opened in each prefecture. Shantung has 40 filatures for the production of tussah silk. In the silk districts surrounding Shanghai there are upward of 20 steam filatures that may be considered of a modern type. The weaving is still done on hand looms; hence the narrower widths are of the most uniform weave. The best silk is said to come from the Wusih district, about 50 miles from Shanghai. Chekiang is a rich silk-producing center. Silk is the main industry in Szechwan Province. Shuntak is the center of the silk industry in the Canton district. Shantung, Honan, and Manchuria produce pongee silks. Antung has now 26 filatures for the production of tussah silks, and efforts are being made in South Manchuria to manufacture the tussah silks there instead of shipping the cocoons to Chefoo as was formerly done. This industry, therefore, may be transferred for the most part to Manchuria.

The value of China's silk exports for 1918 was as follows (1 tael being equivalent to $1.193 United States currency): Raw silk, 74,681,926 taels; cocoons, 3,723,923 taels; silk waste, 9,228,712 taels; cloth, 12,761,809 taels; pongee, 6,149,438 taels; other silk goods, 634,691 taels; total, 107,180,499 taels. The total net exports of China for 1918 amounted to 485,883,031 taels. Thus, silk exports constituted 22 per cent of China's exports for the year.

TALLOW.

The bulk of the animal tallow exported from China is beef tallow, obtained from North China. The exports for 1918 were valued at nearly 2,000,000 taels (about $3,335,000 United States currency).

WHITE WAX.

White wax is produced by a scale insect, the coccus pela, which makes its deposits on the branches of an ash (*Fraxinus chinensis*) and a privet (*Ligustrum lucidum*) and which is found for the most part in Szechwan Province. Wilson, in a chapter on "Insect White Wax," in his very interesting and informative book, "A Naturalist in West China," describes this product as follows:

> Insect white wax bears a close resemblance to spermaceti, but it is much harder. It is colorless and inodorous, or nearly so, tasteless, brittle, and

readily pulverizable at 60° F. It is slightly soluble in alcohol, and dissolves with great facility in naphtha, out of which fluid it may be crystallized. It melts at about 180° F., floats in water, and is said to harden by long immersion in cold water.

The wax is largely used in the manufacture of Chinese candles, a little being mixed with the fats and oils employed in their manufacture; a thin coating is also applied to the outside of the candle. The best candles contain 2½ ounces to the pound, inferior ones not more than 1 ounce. Since the ordinary fats and oils melt at about 100° F., the advantage of an outer coating of white wax with its high melting point is obvious. In paper shops insect white wax is largely employed to impart a gloss to the higher grades of paper. In medicine shops it is universally used as a coating for pills, and is itself supposed to possess medicinal properties. It is also employed as a polish on jade and soapstone ware and on the more delicate articles of furniture, to give luster to cloth, and is made in ornaments used on the images of Buddha, but its primary uses are in the manufacture of candles and in paper glazing.

The annual output varies considerably, the industry being almost entirely dependent upon suitable climatic conditions.

There does not appear to be much of a future for this product, although China exports several hundred tons a year.

WOOL.

Camel's hair comes from the Mongolian steppes and is collected at the port of Tientsin for cleaning, grading, packing, and shipping. A good deal remains in China for varied uses, among which is the making of camel's-hair blankets and rugs. The best of that which goes abroad is said to be used in the finer grades of woolen underwear, by reason of its softness. The exports, all of which are shipped from Tientsin, amount to 2,000 tons a year, one-fourth to one-third of which goes to the United States. The net-weight prices at Tientsin for 1917 ranged from 57 to 65 taels per picul of 133⅓ pounds.

Sheep's wool comes from Mongolia and western China, most of it being taken to Tientsin for cleaning, steaming, grading, and press-packing in preparation for export. About 23,000 tons a year are shipped abroad, valued at $10,000,000 or $12,000,000 gold, 65 to 75 per cent going to the United States. The prices of hand-shaken wool for 1917 at Tientsin were: (*a*) Coarse, 28 to 33 taels per picul of 133⅓ pounds; (*b*) finer grade, 40 taels per picul.

In addition to the camel's and sheep's wools, China also exports about 1,000 tons of goat's hair, more than 50 per cent of which goes to Great Britain. With the vast stretches of good grazing lands in Mongolia, it appears that as soon as transportation and policing facilities covering this sparsely settled territory are improved, great developments may be expected in the mutton and wool industries—in the quality of the wool as well as in the quantity.

VEGETABLE PRODUCTS.

ANISEED OR STAR ANISE.

Aniseed or star anise is used in the manufacture of absinthe, anisette, cordials, and medicines. It is made from the fruit of a small evergreen tree, which grows wild in Kwangsi Province in South China. China exported in 1917 about 1,500 tons of seed, valued at $460,000, and also about 800 tons of oil.

APRICOT KERNELS.

An edible variety of apricot produced in North China is often mistaken for almonds and serves as a splendid substitute for almonds for confections, being cheaper and similarly flavored. Upward of 4,000 tons of apricot kernels are exported annually from North China, 80 per cent through the port of Tientsin. Three-fourths of these are the sweet and about one-fourth the bitter variety, the latter selling for about one-fourth the price of the former. The sweet kernels sold at Tientsin during 1917 at 22 taels per picul (133⅓ pounds) and the bitter at 5 taels per picul.

BAMBOO.

The number of different varieties of bamboo found in China is over 30. Mr. Frank N. Meyer, agricultural explorer for the United States in China, made an extended study of the bamboo for the purpose of demonstrating its utility for introduction into the United States. The results of his studies can be obtained from the Department of Agriculture. Some varieties grow 35 feet in a month. A book could be written describing the manifold uses of bamboo in China. For building purposes, rafts, matting, window shades, door screens, piping, carrying poles, scaffolding, fencing, boat poles, ribs of sails, brooms, crates, cages, chop sticks, Chinese writing-brush handles, fan and umbrella frames and handles, containers, furniture, carvings, irrigation wheels, baskets, smoking pipes, combs, hairpins, pillow and mattress fillings, hats, thatching, etc., etc., it is used extensively throughout China. It is largely employed in certain medicines. Bamboo pulp forms the chief product used in the manufacture of paper in China. Bamboo shoots are an extensive article of diet and would easily find favor in the United States for salads and as a vegetable. The exports of bamboo and bamboo ware are between $500,000 and $1,000,000 annually. Canned, dried, and salted bamboo shoots of about the same value are exported from China.

BARLEY.

Barley is grown quite extensively in North China, and particularly in Manchuria. Mr. Frank N. Meyer describes a huskless barley produced in Kansu. Exports of barley vary greatly from year to year. High freights tend to discourage its exportation. During 1917 about 2,000 bushels were exported.

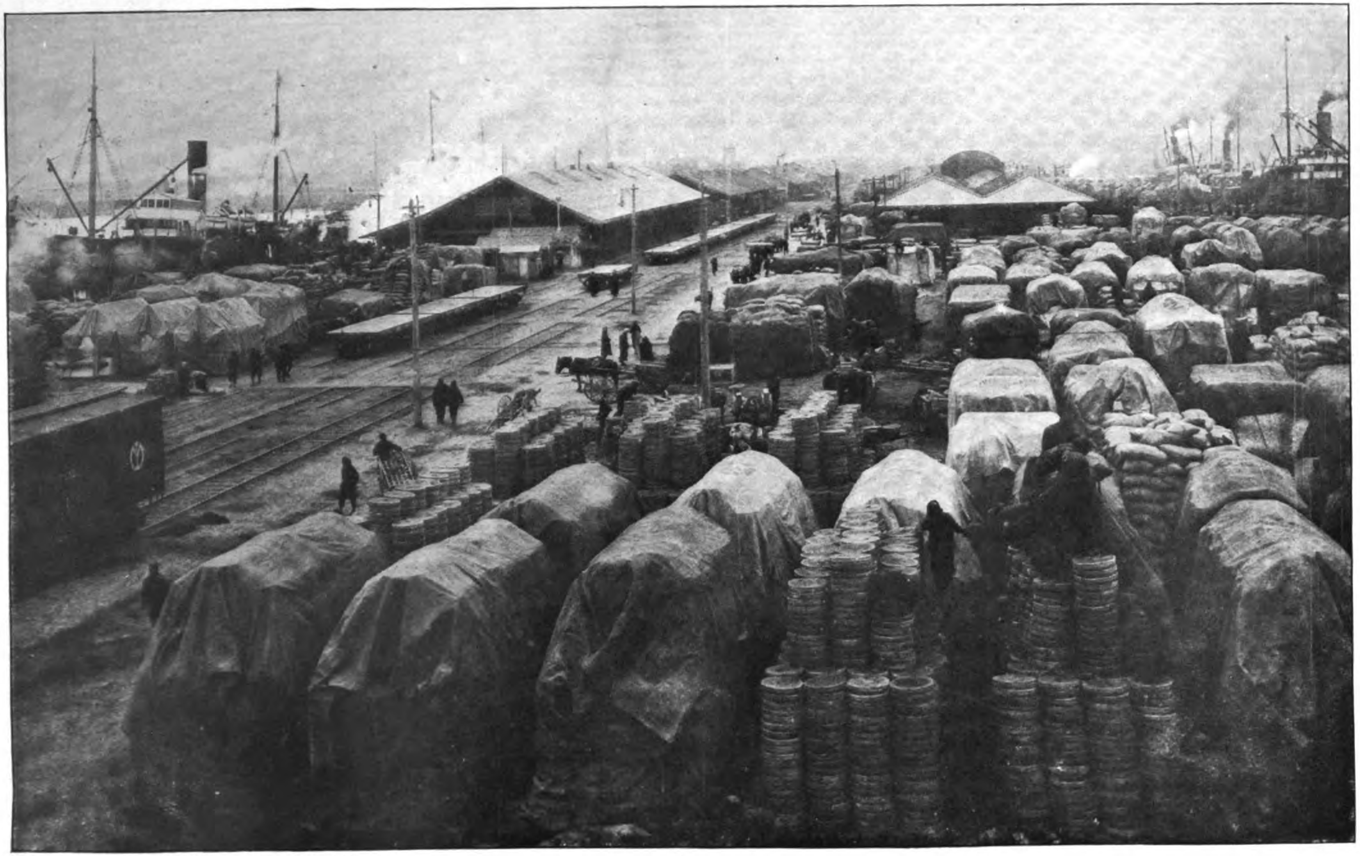
BEANS.

It is only within the past 10 years that the outside world has become acquainted with the soya bean of China. It is probably safe to say that the sudden rise of the soya bean from a position of comparative obscurity to a position of prominence in the world of trade, during a period of little more than a decade, constitutes one of the commercial wonders of the world. In the Far East soya beans are used for the following purposes: (1) For bean sauce or soy ("soya" is a corruption of the Japanese "shoyu"), known to the Chinese as "chiang-yu" and made "by boiling the beans, adding an equal quantity of wheat or barley and leaving the mass to ferment; a layer of salt and three times as much water as beans are afterwards put in when the liquid is pressed and strained." The sauce is clear, resembles Worcestershire sauce, and is used in a somewhat similar way. (2) For "chiang" or bean paste, eaten with fish, meat, and vegetables, and made by boiling together one part yellow beans and two parts water, grinding the mass into the shape of a pancake, and laying it in a cool place for fermentation; completed after two months, after which salt is added from time to time as the water evaporates, making the mixture ready in two weeks for consumption. (3) For "tou-fu" or bean curd, made from green or yellow beans by steeping the beans in water, grinding in a stone mill, passing through a strainer (which retains the epidermis of the beans), then boiling in a pot, after which the preparation is poured off into a jar and a well-diluted brine added, which, being stirred in, causes coagulation of the proteid compound legumin or vegetable casein; the mixture is then ready to be drained off and cut into blocks for sale. (4) For a form of flour, extensively used for bean vermicelli, which is tasty and nutritious. (5) As a table vegetable. (6) For soups. (7) For making confectionery (in Japan). (8) For oil, as a substitute for lard, as a lubricant, as an illuminant, and to make waterproof cloth, paper umbrellas, and lanterns.

Bean cake is the residue after the oil has been extracted and is extensively used throughout the Far East as a fertilizer and to some extent as cattle feed. Consul Johnson describes the manufacture of bean milk at Changsha from the small yellow soya bean. The product looks like unskimmed cow's milk, has a slight odor of beans, a fat content of 3.1, is not unpleasant to the taste, and can be delivered to customers at Changsha at 50 cents gold per month for 1 pint a day. In the western world the soya bean is used but little as a foodstuff. Its principal use is for oil; a refined variety mixed with other oils serves as a salad oil or in margarine. One of the principal uses to which bean oil is put in western countries is in soap manufacture, though it is not as good in quality for this purpose as cottonseed oil. It is also used in the manufacture of various edible goods, toilet powders, paint oils, lubrication, and lighting oils. The soya bean contains about 18 per cent oil. There are three main classes of soya beans—the yellow, the green, and the black, each with several subvarieties. Manchuria is the center of the soya-bean and bean-oil industry, with Dairen as the chief port of export. Dairen exported, during 1918, 146,186 short tons of bean oil, valued at 24,097,036 taels ($28,747,764), the bulk of which went to America, mostly via direct route to Seattle. These are surprising figures, but they will probably be maintained or increased. The vast bulk of the bean cake goes to Japan. Consul Williamson, of Dairen, estimates the Manchurian bean crop at 1,500,000 to 2,000,000 short tons. Consul Moser estimates the soya-bean crop of northern Manchuria at more than 1,000,000 tons a year, 50 per cent of which goes to Japan.

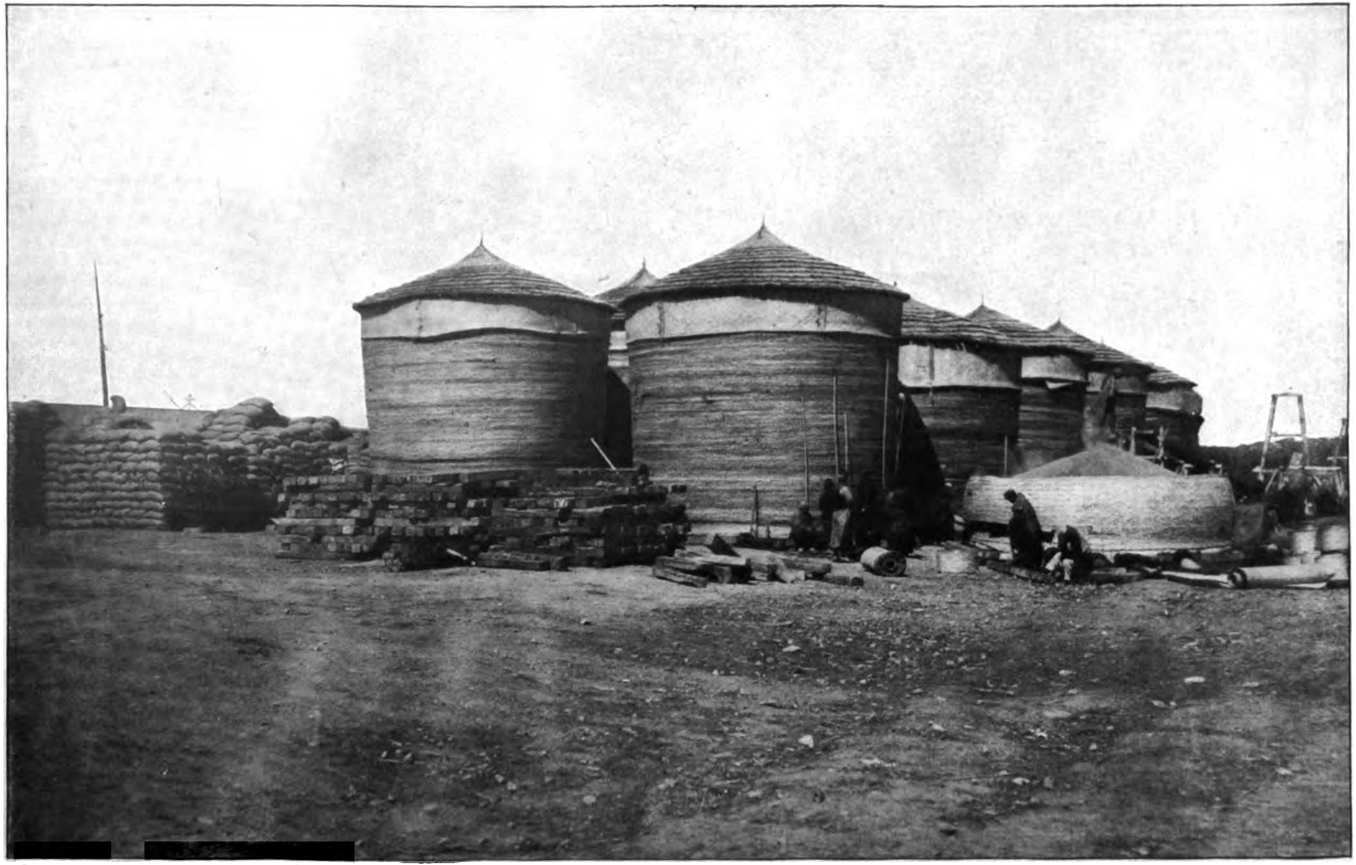
The exports of beans and bean products from China during 1918 were as follows: Black beans, 6,741 short tons; green beans, 10,774 tons; white beans, 31,680 tons; yellow beans, 424,741 tons; other beans, 115,126 tons; total, 589,062 tons, valued at 20,023,628 taels ($23,888,188 United States currency). Bean cake, 1,091,124 tons, valued at 29,882,829 taels; bean curd, 1,883 tons, valued at 222,247 taels; bean oil, 151,811 tons, valued at 24,981,249 taels. Total, beans and bean products, 1,833,880 tons, valued at 75,109,953 taels ($86,806,174).

In the above total of beans exported are included Hankow broad or horse beans, which are different from soya beans but which amounted in value to less than 1,000,000 taels. They are shipped abroad as cattle feed.



Photograph by K. Adachi; courtesy of "Asia."

FIG. 12.—BEAN CAKE IN OPEN STORAGE ON DAIREN WHARVES.



Photograph by K. Adachi: courtesy of "Asia."

FIG. 13.—STORING BEANS INTO OSIER BINS ON DAIREN WHARVES.

The greater part of the preceding descriptive information is taken from the Chinese Maritime Customs Special Series No. 31, "The Soya Bean of Manchuria," published in 1911. The reader may also be referred to articles in COMMERCE REPORTS and to publications of the United States Department of Agriculture on the soya bean.

CAMPHOR.

The camphor of commerce is made from the camphor tree by destructive distillation. The trees, after reaching 50 years of age, are cut down, chipped, the chips boiled in vats, and the distillate collected in crystals upon straw. It is put through a refining process. Camphor is used mainly in the manufacture of celluloid, smokeless powder, fireworks, and medicines. The island of Formosa, where the camphor is held as a Japanese Government monopoly, supplies about 75 per cent of the world's consumption. German chemists produced a synthetic camphor, but because of the use of turpentine, which constantly increased in value, this only had the effect of keeping the monopoly prices from ascending to unreasonable figures. Japanese interests tried about 12 years ago to secure a monopoly on the production of camphor in Fukien Province, the main source of China's supply, but failed. As there has been no systematic replanting in China, the number of trees has continually decreased until Fukien's supplies have become nearly exhausted. Kiangsi, Szechwan, and Yunnan Provinces are said to have considerable numbers of trees, especially the inaccessible regions of southwestern Yunnan. During 1918 China exported 765,600 pounds, valued at 428,074 taels or $510,692 United States currency, 90 per cent of this camphor coming from Kiangsi Province.

CASSIA.

Cassia (*Cinnamomum cassia*) is a large and useful tree found on the borders of Kwangtung and Kwangsi Provinces and in South China generally. The bark, cassia-lignea, is stripped off, allowed to lie for 24 hours, during which time it undergoes a species of fermentation, and the epidermis is easily scraped off. It dries into a quilled shape, in which it comes to market. It is smaller quilled, breaks shorter, and is less pungent and acrid than cinnamon. During 1916, 10,000,000 pounds of the bark were exported from Canton via Hongkong. Cassia oil is obtained from the leaves and the twigs by distillation and is used in medicine. It is also used in perfumery and flavoring condiments. Cassia buds, refuse, and twigs to the extent of 6,670,000 pounds were exported during 1918.

CASTOR OIL.

The extensive use of aeroplanes in the war has greatly increased the demand for castor oil, which is used as a lubricant for the motors. It is used for mixing with paints, for medicinal purposes, for cooking and illuminating purposes, and for mixing the colors for Chinese seals. The oil is extracted from the seeds by simple pressure. The crude oil is boiled with water, which separates the alkaloids and other impurities, the water being then evaporated. In China castor beans are planted on the borders of fields to prevent animals from wandering onto the fields, as the beans are poisonous because of the alkaloids they contain, and the animals will not devour them. They are found quite abundantly over most of China. The oil has only recently found a place in foreign trade. The price now (Sept. 18, 1918) is 22 cents a pound, as compared with 12 cents a year ago. There should be good prospects for the development of this trade.

CORN.

Indian corn, or maize, is grown extensively throughout the entire section of China north of the Yellow River. It is generally planted after the wheat is harvested and in fields with beans, the beans ripening after the corn is harvested, The lack of scientific seed selection prevents the production of as large a yield as would otherwise be obtained.

COTTON.

Estimates of China's cotton production vary considerably, but in normal years it seems to be between 1,500,000 and 2,000,000 bales of 500 pounds each. This makes China the third country in cotton production, America being first, with 13,000,000 bales, and India second, with 4,000,000 bales. Competent Chinese authorities estimate China's cotton crop for 1918 at 2,500,000 bales (at least), or 9,000,000 piculs of 133⅓ pounds each. China's production is increasing rapidly, but is capable of vast development. Scientific methods of planting would increase the yield per acre two or three fold, and the acreage planted could be increased almost without limit. China now produces the cheapest cotton in the world, but taxes it higher in transportation to mills in China than for export abroad. It is planted immediately after the harvesting of the wheat or other early summer cereal, so that the soil in which it is planted has had no previous rest. It is grown throughout the great Yangtze Valley and in Shantung, Shensi, Shansi, Chihli, and some of the southern Provinces. Generally the Chinese cotton is considered a short-staple product. This is especially true of that grown in the north and shipped from Tientsin. America imports considerable quantities of this short-staple cotton for use in the manufacture of blankets. The best cotton in China is that grown in the Wei Basin in Shensi from seed introduced there from the United States by American missionaries. South Tungchow, near Shanghai, also produces a very high-grade cotton. China exported, during 1917, 220,000 bales of cotton, valued at $20,500,000; of this quantity, 74 per cent went to Japan and 17 per cent to the United States. China also exported in 1917, 5,400 tons of cotton waste, 80 per cent of which went to Great Britain. The prices of raw cotton at Tientsin ranged, during the year 1917, from 27.50 taels (at the beginning of the year) to 210 taels (at the end) per picul (133⅓ pounds).

Cotton manufacture is advancing rapidly. The first modern mill is scarcely more than 20 years old, and China has to-day 1,250,000 spindles and 5,000 power looms, producing annually 250,000,000 pounds of yarn and 60,000,000 yards of cloth. The yarns generally are the low counts, 12, 14, and 16, for which the native-grown cotton can be used. There are tens of thousands of hand looms scattered throughout the country, yet China still imports annually cotton yarn to the extent of $60,000,000 worth (United States currency) and cotton cloth valued at nearly $100,000,000. It imports 75,000 bales of raw cotton. Shanghai is the center of the cotton industry of China, with more than half of the spindles and looms of the entire country. Returns for 1917 show 40 per cent profits for some of the Shanghai mills. Marvelous developments in all phases of the cotton industry in China may be expected. For an exhaustive treatment of the subject readers are referred to "Cotton Goods in China," by Ralph M. Odell, Special Agents Series No. 107, issued by the Bureau of Foreign and Domestic Commerce, and also the North China Daily News (Shanghai) booklet on "Cotton in China" (1917).

COTTONSEED OIL, CAKE, AND HULLS.

According to a report on cottonseed oil by Vice Consul Krisel, the Chinese cotton seed is smaller than the American; hence the yield of oil is proportionately smaller. The mills pay about $1.75 Mexican per picul for the seed, equal to about $1.25 gold per hundredweight. The Shanghai mills produce about 10,000 tons a year. The crude oil is used for cooking and illuminating purposes by the Chinese. It loses about 14 per cent in the refining process. The seeds yield about 8½ per cent crude oil, 36 per cent cake, 50 per cent hulls, ½ per cent lint, and 5 per cent dirt. The cake finds a ready market for cattle food, and the hulls are in great demand for fertilizer. China exports about 7,000 tons of cottonseed oil annually, but the home consumption is still greater. With the development of the cotton industry, which is certain to proceed in China in a big way, the production of the by-products will naturally increase.

FRUITS.

North and West China produce excellent varieties of jujubes, which when dried are erroneously termed red dates, as well as persimmons, which when dried are erroneously called black dates. These make excellent confections for table use. China exports about 3,000 tons of "black and red dates" besides producing large quantities consumed locally. The jujubes are eaten fresh, dried, stewed, or smoked. When dried they somewhat resemble a large dried date. They are boiled in sugared water, then dried. Honey is added for the best grades. Jujubes and China persimmons are now being grown at Chico, Cal., by the U. S. Department of Agriculture and give promise of becoming table fruits for the American public.

China is rich in fruits, although scientific methods have not been applied in their growth, cultivation, and care. In the north, peaches, apricots, pears, grapes, apples, persimmons, plums, haws, and jujubes are grown in plentiful quantities and numerous varieties. In Central China, peaches, loquats, apricots, pears, and plums, and in South China oranges, pomeloes, lungngans, lichees, loquats, and bananas are found in abundance. Mr. Frank N. Meyer, explorer for the United States Department of Agriculture, has written an interesting report, entitled "China's Fruits and Nuts," which may be obtained from the Department of Agriculture.

GALLNUTS.

Gallnuts, or oak apples, are produced by insects on certain trees, the *Rhus javanica* and the *Rhus potaninii*, found in mountainous regions of West Hupeh, Hunan, Kweichow, Szechwan, and Kwangsi. "The galls are oblong, rough, and tubular, the shell hard, brittle, and gummy, and the hollow center has a cottony ball, the covering of the pupa." They are used to dye silks black, in tanning, and as medicine. They are reputed to furnish the finest tanning extract in the world. China exports gallnuts to the value of 1,000,000 taels a year—about 15,000 tons—75 per cent going to the United States, which now controls this trade. Hankow and Chungking are the principal ports of export.

GINGER AND GALANGAL.

Ginger (*Zingiber officinale*) is grown in the West River and hilly districts of northwestern Kwangtung, throughout Szechwan, and in certain central Provinces. It is eaten to a considerable extent in the green state as a condiment and a corrective. The preserved ginger comes mostly from Canton. Galangal (*Alpinia officinarum*) is sometimes mistaken for ginger proper. It belongs to the ginger family. The root is smaller than that of the ginger, being usually about 2 inches long and half an inch thick. It tastes like a combination of ginger and pepper. It is used as a preserve, like ginger, and also medicinally. A good deal of it goes to the United States as ginger. It is cultivated in the island of Hainan, off the Kwangtung coast. China exports about 1,000 tons of galangal and 5,000 tons of ginger annually.

GRASS CLOTH AND RAMIE.

China produces grass cloth woven from ramie, pineapple, or jute fibers. The best ramie is produced in Kiangsi Province, where a considerable quantity of the cloth is woven. Szechwan Province produces large quantities of ramie, but the cloth is coarser than that produced from the superior Kiangsi fiber. Kwangtung Province also produces some good fiber. It is unfortunate that the Chinese Government has not given this industry greater attention, for it appears to possess notable possibilities. Swatow is a center for the production of grass cloth, as much of the fiber is sent there for weaving on machine looms, although the greater part of the Chinese grass cloth is woven on hand looms by women, who receive $1.25 Mexican for weaving a piece 34 feet by 17½ inches. The hand-woven cloth naturally lacks uniformity in texture and material. The foreign machine-woven cloth comes in bolts 34 inches by 20 yards or 17 inches by 40 yards. The best pineapple fiber for grass cloth is produced on the island of Hainan, where some of the cloth is woven, but most of the Hainan fiber is sent to Swatow for weaving. Some of the Chinese grass cloth compares very favorably with linen. Kiukiang is the principal port in China for the exportation of grass cloth, with Swatow second. In Swatow the foreign missionaries taught the natives the making of drawn work from grass cloth, which has developed into a substantial industry. Most of this drawn work is also embroidered. Women are able to earn $5 to $7 Mexican ($4 to $5.50 United States currency) per month at this work, which is all done by hand.

The world has heard much about ramie, or "Chinese grass" as it is known in China, and millions of dollars have been spent in trying to elevate this fiber to an important place in the textile world, with apparently little result.

Kiangsi Province produces the most and (as stated) the best ramie (*Boehmeria nivea*). It is differentiated by the natives from hemp in that it is never irrigated. It is called a dry or mountain hemp, although the districts in which it is produced have a plentiful rainfall (probably 35 or more inches a year); the soil and the character of the land are such that the water does not inundate or stand. The seed must be planted in the fall and the crop can then be reaped the following year. The natives contend that the best plants are produced from the planting of the roots. The plant will last for from five to seven years. It grows to a height of 6 or 7 feet. Three cuttings a year can usually be made, although in some places only two are possible. The stalks are stripped of leaves, bundled according to size, and in some regions soaked for a few days in water. After this they are bent, and the fiber is removed by a beating and soaking process, while at the same time the mucilaginous substances in the plant are scraped off with a dull-edged knife. The process requires several days and is all done by hand, the labor being for the most part that of women and children. When ready for weaving the fiber is boiled, sometimes in lime water, and beaten so as to remove the resin and gum and make possible the separation of the fibers. This process has to be repeated a number of times. The whole process of cleaning the fiber and weaving the cloth in China is crude. The industry has not yet been commercialized. Several efforts have been made to introduce modern machinery for decortication and degumming the fiber. but apparently without success. However, with cheap labor, the present crude methods seem to produce a good fiber, and the industry assumes a position of considerable importance in various sections of China. But its future is still uncertain.

The Chinese grass or ramie is bought according to quality, crop, and length. The first crop brings better prices than the second or third, and long fibers better prices than short. Because of their strong fibrous nature they are suitable for incandescent gas mantles, etc.; they produce a very fine quality of yarn suitable for light, strong underwear. For export shipping the ramie is hydraulic-pressed into bales weighing about 600 pounds, measuring between 11 and 12 cubic feet. China exports about 20,000 tons annually.

Japan is at present the most active purchaser of Chinese grass, although recently shipments have been made to the United States by the British-American Tobacco Co. for the manufacture of cigarette paper. It is prepared in Japan to resemble silk thread, from which imitation silk garments are produced.

For more detailed information readers should consult COMMERCE REPORTS for March 2, 1914.

KAOLIANG.

Kaoliang is better known in the United States as sorghum. This is one of the staple crops of North China and Manchuria and in that section yields more to the acre than any other crop. It grows to a height of 10 feet, is sown after the wheat is harvested, and is ready for cutting in September. An acre will produce from 35 to 45 bushels. It is used for human and animal food and for making a spirituous liquor very popular with the Chinese. Three varieties are produced—white, red, and glutinous. The white is the best and is cooked like porridge. The red is best suited for wine, while the glutinous is used for dumplings, pastry, etc. The stalks are used for thatching houses, for packing and bridging, as matting for floors, and for fuel. The green blades furnish fodder for the cattle.

LICHEES.

The lichee is a delicious fruit raised in South China. When dried it is known on the American Pacific coast as the "China nut." The fresh fruit is canned at Amoy, Foochow, and Canton, and considerable quantities are exported, the greater part probably going to the Chinese populations abroad. China shipped to foreign lands 1,762 short tons during 1918. The reader may be referred to the report on lichees by Consul General Cheshire, published September 24, 1915, in COMMERCE REPORTS.

LICORICE.

Licorice root occupies a prominent place in the materia medica of China, which, according to foreign physicians, is very rich. It has within recent years assumed a position of importance in China's export trade, as is indicated by the customs returns for 1918, showing an exportation of 3,955 short tons, mostly from Tientsin. The licorice comes for the most part from northern and northwestern China, growing wild in the Kokonor and Inner Mongolia districts. It is used as a sweetener and adulterant in the manufacture of porter, tobacco, and chewing gum, aside from its ordinary medicinal use.

LINSEED.

Linseed from northwestern China gives promise of becoming an important article of export. The war has interfered with the trade, although about 7,500 short tons are being exported annually to America and Japan.

MILLET.

Millet is one of the staple crops of North China, including Manchuria. There are three varieties—a large, a small, and a glutinous. The first is used for food and makes a delicious porridge, being used as the principal food for a large population in North China; the second is used for both human and animal food, and the third for making flour and cakes and for distilling purposes. Millet is sown immediately after wheat is harvested, about the end of June, and is out at the end of August or the beginning of September. It is a heavy producer, giving a greater bulk return to the acre than wheat. For a description of China's crops and agriculture in general the reader is advised to consult "Farmers of Forty Centuries," by Prof. F. H. King.

MUSHROOMS.

The West has much to learn from China's dietary. It is far more scientific than westerners are inclined to believe. It is rich and economical. Many of the products in the Chinese dietary could be advantageously adopted by occidental countries. The writer has yet to find the Chinese who, after years of absence abroad, returns to his country preferring the Western dietary to that of his own people. On the other hand, scores of westerners in China are as fond of Chinese food as they are of their own, and some seem to prefer it. At all events, there are Chinese dishes that have come into great favor with westerners living in China.

The Chinese use many varieties of fungi in their dietary. Dried mushrooms are popular with Chinese everywhere. They are gradually assuming a position of importance in the export trade. In 1918 China exported 180 short tons; it is likely that this amount includes fungi other than mushrooms, as the customs authorities probably do not distinguish. Foochow is the center of this trade. It exported to other ports in China and to foreign countries a total of 361,000 pounds of dried edible fungi. They are grown in the mountainous districts in the interior of Fukien, on hardwood logs felled for the purpose. Incisions are made in the logs, liquid manure is poured over the incisions, straw is covered over them, and when this is well rotted the fungi spring forth. So reports Consul Pontius, of Foochow, who also states that snow, frost, and rain are necessary to insure a good crop of tasty fungi, and that the winter crop is considered more delicious than the spring crop.

NARCISSUS BULBS.

A short distance inland from Amoy there is a bit of marshy ground which produces the bulk of the narcissus bulbs that are so highly prized by Chinese everywhere and that for many years have been an article of export. Three million bulbs is the usual quantity produced annually for shipment, one-third of these going abroad. Once each year during the month of July a trans-Pacific steamer calls at Amoy to take on a shipment of these bulbs to supply the trade in the United States, consisting mostly of Cantonese people resident there.

OATS.

Szechwan, Kansu, Shensi, and Manchuria produce oats in a considerable quantity. Mr. Frank N. Meyer describes a huskless variety of oats grown in Kansu. China exported, during 1917, 70,000 hundredweight of oats.

ORANGES.

The southern Provinces of China produce many varieties of oranges, the most famous of which is the delicious sweet Swatow "honey orange," of which 6,000 tons are exported annually. Mr. Meyer says that 80 different varieties of oranges are produced in China.

PEANUTS.[1]

Just before the outbreak of the war the peanut industry in China had reached its highest point in its relation to the foreign export trade. The annual exports then were about 70,000 tons of shelled peanuts and about 50,000 tons of oil. More than 40 per cent of these amounts went from the port of Tsingtau, as Shantung has developed into the largest peanut-producing Province in China. Seeds are planted there in May or June and harvested in October or November. The yield runs from 2 to 4 tons per acre. The Province is estimated to produce more than 200,000 tons of unshelled peanuts per year. Honan and Chihli rank next in importance to Shantung in the production of peanuts. Fukien and some of the other southern Provinces also produce considerable quantities; in fact, the growing of peanuts is pretty well scattered over the whole of China. The bulk of the exports go to Marseille and London, although in recent years America has taken considerable quantities. During 1918 China exported 32,482 short tons of shelled peanuts, 2,896 tons in the shell, and 39,375 tons of oil. Shanghai, Hongkong, Chinkiang, Tientsin, Chefoo, and Lungkow figured in this trade. Tientsin prices for 1917 were quoted at 5 to 7 taels per picul (133⅓ pounds) for shelled and 4.50 to 6 taels for unshelled peanuts.

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[1] In the Far East these are often called "groundnuts."

POMELOES.

Pomeloes produced in Fukien, Kwangtung, and South China are of many varieties, the best coming from Amoy and Canton.

RAPESEED.

Rapeseed is a very important product in the Yangtze Valley, more especially in the central section. It is a winter crop, being ready for harvesting in April, before the planting of rice, cotton, and certain other crops. It yields about 600 pounds of seed to the acre. There are three plants under this designation, all members of the cabbage family, known to the Chinese as small and large "oil vegetable," and producing brown, yellow, and varicolored seeds. At one time a large section of China depended on rapeseed oil for its illuminant, but kerosene has reduced its popularity enormously. The yield of oil is about 32 per cent. It is extensively used for cooking and for composition in Chinese candles. It is also useful as a lubricant because of its high viscosity. It is exported for use in the manufacture of soft soaps and steel. In the manufacture of the latter the heated plates are dipped in rapeseed oil to harden them. The leaves and young shoots make a nutritious food. The refuse or cakes are in great demand for fertilizer. The stalks are used as a screen for the protection of tobacco seedlings, as well as in bundles to serve as a spinning ground for silk worms, and ultimately as fuel. The war seriously affected the exports of rapeseed and rapeseed oil, reducing them from 50,000 tons to 30,000 tons (1917) for the seed and from 3,000 to 1,000 tons (1917) for the oil. Readers interested in rapeseed should consult King's "Farmers of Forty Centuries" and Wilson's "A Naturalist in West China."

RHUBARB.

Rhubard is an important article in the pharmacopœia of China. The country exported in 1918 406 tons of rhubarb, valued at 80,265 taels, mostly from Szechwan. Rhubarb (Ta-huang) is the root of *Rheum officinale* and *Rheum palmatum*, which grow in Chihli, Shensi, Kansu, Hupeh, Szechwan, and Tibet. The most expensive rhubarb comes from Shensi. On the average, the Szechwan rhubarb is very good. Good rhubarb is of a reddish-yellow color, variegated or mottled, and firm in texture. The pieces should be dry and not too light. When chewed the root should grate upon the teeth, have a bitter and sharpish rather than a smooth flavor, and color the saliva with a deep yellow tinge. The roots are dug up when from 6 to 7 years old, just before the flowering season, which occurs during the third and fourth moons, and again during the seventh and eighth moons after the seed has ripened. They are then peeled and cut into pieces, placed on strings, and hung up to dry.

RICE.

There is a mistaken idea abroad that every Chinese man, woman, and child in China eats rice every day. As a matter of fact, there are millions of Chinese living in Shensi, Shansi, and northwestern China, where rice is not grown, who never have seen or tasted rice. There are millions in the rice-producing sections who can not afford to eat rice regularly. With these qualifications, it may perhaps be said that rice is the staple article of diet of the Chinese people, or, more correctly, of the people of Central and South China; though, strictly speaking, there is reason to believe that the sweet potato occupies an even more general place in the dietary of the people throughout all sections of China than does rice. The Yangtze Valley is the great center of rice production. It is raised throughout Central and South China, but not in sufficient quantity to meet the full needs of the people; in ordinary years about 600,000 tons, valued at $25,000,000, are imported from Saigon and Rangoon.

King gives the average production per acre for water rice as 40 bushels. In the south of China two crops are raised annually, but north of the Yangtze generally only one. Glutinous rice is used to make flour, which is baked as cakes. Puffed rice is also made from the glutinous variety. The rice is put in a large iron kettle with powdered charcoal and heated while being constantly stirred.

Rice straw is the most common material for the manufacture of paper in China. It also serves as food and bedding for animals, as thatch for houses, and as fertilizer.

Rice wine, samshu, is made in enormous quantities in China, although the people are not given to intemperance. The best rice wine is made at Shaohing, in Chekiang. During 1918, 5,525 short tons of ordinary samshu, and 3,051 tons of medicated samshu, were exported.

SAFFLOWER.

Safflower (*Carthamus tinctorius*) is cultivated in Szechwan, where it is used for producing a beautiful red liquid for dyeing silks. It is used also in rouge. It makes a valuable oil, and the powdered cake is a nutritious cattle food. In semiarid regions it is adapted to dry-farming methods.

SESAME SEED.

The potentialities latent in certain products and industries in China were shown in the development of the soya bean. The phenomenal growth of the export trade in sesame seed is another instance. Up to 1897, sesame seed was almost negligible as an article of export, amounting in value in the year mentioned to less than 50.000 taels, the highest value ever reached up to that year. Prior to the outbreak of the war, the exports one year reached 164,000 tons, valued at 12,000,000 taels. The war has so reduced tonnage and increased freight rates that this trade (in a bulky product) has suffered severely. During 1918, only 15,607 tons, value at 1,173,384 taels, were exported.

Sesame is produced throughout a very large area of China, but particularly in the lower Yellow River Basin, where light sandy soil favors its growth. It is often planted with cotton seed, growing up together, but the sesame is ready for harvesting before the cotton bolls are matured. The seeds are used as food, but are chiefly valued for their oil. Of the three colors, the white, the yellow, and the black sesame seed, the first named contains the highest percentage of oil. By their native methods the Chinese get from 40 to 50 per cent of oil from the seeds. The oil is about four times as valuable as rapeseed oil; hence in China, where no laws prevent adulteration, the sesame seed oil in the market is likely to be adulterated with rapeseed oil. The Chinese use the former for cooking, as an illuminant, and as a lubricant. The poorer qualities are used in the manufacture of soap.

The seed, rather than the oil, was exported in large quantities to Europe, where the oil was extracted by improved processes. The laws in Denmark, the Netherlands, and certain other European countries require that a certain percentage of sesame-seed oil be used in the manufacture of margarine. It is used also in the manufacture of salad oils and soaps. Hankow is China's great center of export for sesame.

SUGAR.

China exported, during 1918, 11,254 short tons of brown and 2,172 tons of white sugar, the bulk of which went from Swatow. Fukien Province is showing activity in developing the cane-sugar industry to replace the opium poppy, which was its most profitable crop a few years ago. There are big possibilities for cane-sugar production in South China, and the Chinese are interesting themselves in them. In southern Manchuria, the South Manchuria Railway has put $5,000,000 gold into beet-sugar refineries and is distributing free seeds among farmers, with prizes to those who plant them. A crop of 400,000 tons of sugar beets was raised in 1917. The sugar is being mixed with Formosan cane sugar so as to habituate the people to its use.

TALLOW, VEGETABLE.

The American consul at Hankow in 1906 reported that a small consignment of vegetable tallow had been shipped from Hankow to the United States as a sample, but that no business had resulted therefrom, and all of the exports of this product—about 26,000,000 pounds for the year—had gone to Europe. The American consul at Hankow in 1918, reporting on the trade for 1917, stated that 10,500,000 pounds of vegetable tallow, valued at $1,400,000, were exported to the United States, out of a total export from China of 20,200,000 pounds. Hankow handles the whole of China's exports of this product. The best quality, the Kingchow, and the second quality, also white, are used in making high-grade toilet soaps and face creams. The third and fourth qualities, which are of a greenish shade, are used in cheaper soap and candle manufacture. In 1908 the white tallow sold for 10 to 11 taels (about $7 gold) per picul (133⅓ pounds) at Hankow. In March, 1917, the price was 13.50 taels, and in December 15 taels per picul. In March the tael was equal to $0.85 gold and in December to $1 gold. In 1908, the freight rate to New York was $8 gold per ton, while in December, 1917, it was $60 gold per ton.

Vegetable tallow is produced from a bean or seed of a tree—the *Sapium sediferum*, or tallow tree, a member of the spurge family, which grows wild in hilly sections of South, Central, and West China. The seeds (three and sometimes four to a pod) are about the size of a coffee bean. The trees are prolific bearers. The fruit, when ripe, some time in November, is spread in the sun to dry, when the pod opens and the seeds are exposed. They are covered with a grayish white substance, which is removed by steaming and then rubbing through a bamboo meshed sieve. This substance, the tallow, is melted and formed into a mold. It is reported that the seeds yield 28 per cent tallow. The seeds, after the removal of the tallow, are pressed for their oil content, which is heavy (about 40 per cent of the total). The oil is said to possess the property of turning gray hair black. It is used as an illuminant and for mixing with higher-quality and higher-priced vegetable oils. The refuse is valuable manure for the tobacco plant and serves as a fertilizer generally. The Chinese call the tree "Mu-tsz-shu," the tallow "pi-yu," and the oil "ting-yiu."

TEA.

The East India Co. in 1678 carried to England 4,713 pounds of Chinese tea on speculation. It was considered a "drug on the market." But British imports of this tea subsequently increased to nearly 200,000,000 pounds, half of which was for British consumption. China's high-water mark in the tea trade was reached by 1886, when its total exports were 300,000,000 pounds. In 1838 the first Indian tea reached the London market. By 1860 this had developed into a trade of 1,000,000 pounds; prior to that date it may be said that China supplied the needs of the entire world. Five years later, China was supplying 96 per cent of the world's consumption, India and Java making up the rest. A notable event in connection with the Indian tea trade was the celebration in 1888 of the fiftieth anniversary of the introduction of Indian tea into England, at which time it was announced that Indian and Ceylon teas had just passed the 50 per cent mark in the imports of tea into Great Britain, thus taking from China the supremacy which it had held up to that time. Exports of British Indian teas have come to exceed the exports of Chinese teas in the world's foreign trade. For the year 1905, there were consumed in the British market only 6,700,000 pounds of Chinese tea, representing 2.5 per cent of the total consumption—indicating that British-grown teas had almost completely ousted Chinese teas in the British markets. It is interesting to note in this connection the rapid rise of Java teas in the tea world; Java's tea exports are soon expected to reach 100,000,000 pounds a year. The displacement of Chinese with Indian and Ceylon teas in the Australasian market has been even more complete. Thus in 40 years' time Chinese teas were almost completely displaced in the British tea-consuming market by British-grown tea. Stranger still, the customs returns of trade from China show that between 25,000,000 and 30,000,000 pounds of foreign teas are being imported into China each year, the bulk being from India and Ceylon. This is the result of British enterprise and business organization in contrast to the lack of such qualities on the part of the Chinese, for, according to tea experts and judges of good teas, Chinese teas are superior in delicacy of flavor to those produced elsewhere.

The Chinese are appreciating the seriousness of the situation, and there are indications that effective steps will be taken during the next 10 or 15 years to repopularize Chinese teas abroad and bring to the country the tens of millions of dollars that the possibilities in this trade involve. The Peking Cabinet recently decided to establish a tea bureau under the Ministry of Agriculture and Commerce. Certain legislation in the United States and corresponding sentiment throughout the world will create plentiful opportunities for beverages such as tea, so that there will be room for continued expansion in Indian and Ceylon products even though Chinese teas should succeed in doubling and tripling their consumption among Western peoples.

The different kinds of teas in China have been classified as follows:

Black teas.—Anhwei Province—Keemun; Kiangsi Province—Ningchow and Moning; Hupeh Province—Copacks, Sungyang, Yungloutung, Tongsan, Ichang, and Cheongshukai; Hunan Province—Oonahms, Oanfa, Liling, Nipkasee, Wunkai, Lowyong, and Shuntam; Fukien Province—Congou, Panyong, Packlum, Souchong, Soomoo, Suey Kuts, and Oolong. The blends of these are known as Scented Capers, Scented Orange Pekoe, Pouchong, Kooloo, and Flowery Pekoe.

Green teas.—Anhwei Province—Moyune, Tienkai, and Fychow; Chekiang Province—Pingsuey, Hoochow, and Wenchow. These make the blends known as Sowmee (also known as "Shanghai Packed"), Gunpowder (Siaou Chu, small leaf), Imperial (Ta Chu, large leaf), Hyson, Young Hyson, Hyson Skin, and Twankay.

The Oolong teas are, strictly speaking, neither black nor green. Flowery pekoes are white, velvety-tipped teas made only from the tender young buds that appear at the beginning of the season. The choicest Oolong is known as the "silver tipped," which is also made from the tender leaves of the early pickings.

The fragrance of scented teas is not natural. It is imparted by firing with the leaves of the jasmine or gardenia flowers. The high-grade teas are not artificially scented. A true lover of tea delights in the natural aroma of high-grade teas, but tea is robbed of its natural aroma when drunk with milk or as ordinarily prepared by the American housewife who has not learned the art of preparing tea. The Chinaman in preparing tea places a pinch of leaves in a Chinese teacup, which is without a handle, pours boiling water over them, and places the cover on the cup. In a few seconds the tea is ready for drinking; the covered cup is raised to the mouth, and, with the fingers of the hand holding the cup, the lid is moved just sufficiently to permit the liquid to flow into the mouth as the cup is tilted.

Tea is black or green according to the method of preparation or manufacture. The oolongs of Formosa and Foochow are prepared in a manner quite distinct from that followed in the preparation of either green or black teas.

In China tea is not grown on plantations. The individual farmers throughout China cultivate small pieces of ground, whatever the crop may be; in fact, the agriculturists of China are gardeners rather than farmers. The tea leaves are picked mostly by girls and women, with generally three pickings a season. They are withered in the sun after picking, after which they are fired. In the case of green teas, the leaves are roasted almost immediately after they are picked, rolled into balls by hand to crack the veins and set the acids, and then dried quickly. The black teas are subjected to a longer process of firing and drying. The Indian and Ceylon teas are machine rolled. The more delicate and smaller leaves of the Chinese teas are not successfully prepared by machine rolling. This is particularly true of the oolongs, which require a very elaborate process of hand rolling.

The principal ports of export are Hankow and Kiukiang for black teas, Hangchow, Ningpo, Kiukiang, and Santuao for green teas, and Foochow for oolong and black teas. The exports of tea for the year 1918 were 53,895,464 pounds, valued at 14,066,872 taels ($16,781,779 gold), the lowest figures on record. Tea for many years ranked first in value in China's exports. It now ranks third, coming after silk and beans, and is likely soon to be surpassed by cotton, hides, and oils, unless more enterprise and organization are imparted to the industry by the Chinese themselves, who, as stated, now appear to realize the seriousness of the situation.

TOBACCO.

It appears that tobacco found its way to China through the Philippine Islands during the sixteenth century. It is now cultivated in many sections of the country. Probably it is more extensively grown in Szechwan than elsewhere, as it is cultivated throughout that Province. Consul General Hosie (British), in his report on the Province of Szechwan, gives a very detailed description of its cultivation, preparation, and manufacture in that section of China. American Consul Gauss, at Amoy, gives a detailed description of the tobacco industry of southern Fukien, where a crop estimated to be worth $500,000 gold is produced (see COMMERCE REPORTS for Nov. 21, 1917). The British-American Tobacco Co. has introduced modern tobacco planting and curing methods into China with American seed and under expert American supervision. Experimental stations are maintained in Shantung and Anhwei and seeds distributed free to growers. By this means the company is gradually improving the quality and value of the tobacco grown in China. As a result, Shantung, through Tsingtau, in 1917 shipped to Shanghai 4,700,000 pounds of tobacco, valued at 635,000 taels. Besides the enormous home consumption (the Chinese generally using tobacco), China exports about 10,000 tons of tobacco leaf and stalk a year, valued by the customs at 1,500,000 taels, and 5,000 tons of prepared tobacco, valued at 2,000,000. Hankow, Kiukiang, Canton, and Amoy are the principal export centers. At the same time, the importation of cigarettes is increasing. During 1918 China imported 9,231,941,000 cigarettes, valued at 23,983,563 taels, or $28,612,391 in United States currency. This means an importation of 23 cigarettes per capita. The British-American Tobacco Co. has two large cigarette factories in China, in addition to which there are a number of smaller native and Japanese factories—these latter constantly increasing. The estimated number of cigarettes manufactured in China is even greater than the number imported. The anti-opium campaign did much to further the consumption of tobacco. The Chinese smoke comparatively few cigars; hence the cigar industry is not of importance in that country. Tobacco is grown in every Province and is certain to become a very important industry in China.

VARNISH.

Varnish is produced in China from a tree commonly spoken of as the varnish tree but known botanically as *Rhus vernicifera*, which is found in abundance in the mountains of Hupeh, Kweichow, and Szechwan. The varnish is taken from the tree after it is about 6 inches in diameter by tapping at intervals of from 5 to 7 years until the tree is 50 or 60 years of age. A good-sized tree will yield from 5 to 7 pounds of varnish. The natural color of the crude varnish as applied is black. It is considered the most indestructible varnish known. One peculiarity is that it hardens only in a moist atmosphere. In China it is erroneously known among the foreign communities as "Ningpo varnish," probably because it first came into contact with foreign trade there. Many persons are poisoned when they come into even atmospheric contact with this varnish, which fact, unfortunately, reduces its trade possibilities enormously. As yet no method has been discovered whereby this poisonous quality can be counteracted. Hankow is the principal port of export for varnish. China's exports of varnish average about 1,000 tons a year. For a full description of this interesting product the reader is referred to Wilson's "A Naturalist in West China."

WALNUTS.

Walnuts (*Juglans regia*) are common throughout North and West China, sometimes in orchards, but generally scattered among the hilly and mountainous sections. They are used as a food, and the oil is expressed and used for culinary purposes. It is very sweet and delicious. During the last few years from 2,000 to 5,000 tons of walnuts in the shell and from 200 to 700 tons of kernels have been exported from China, the bulk of the nuts going from Tientsin and the kernels from Hankow. Walnut oil is now appearing in the list of exports in place of the more bulky product, because of the high freight rates. The price of walnuts in Tientsin for 1917 ranged from 5 to 6.50 taels for the nuts in the shell and 13 to 21 taels for the kernels, the unit being the picul, or 133⅓ pounds.

WHEAT.

It is impossible to estimate with any degree of satisfaction the amount of wheat grown in China. It is the staple crop of North China, just as rice is the staple of South China; and wheat is raised in every Province. It would seem that 200,000,000 bushels would be a safe estimate. In Manchuria, the yield is estimated at less than 20 bushels to the acre, giving a total for all Manchuria of 60,000,000 bushels. In Shantung, where there is intensive cultivation and fertilization, the yield reaches 40 bushels to the acre, as also in the Wei Basin in Shensi, but in many parts of China it does not exceed 10 or 15 bushels. The question is only one of economical transportation in the wheat-growing sections; the solution of this problem will place China in the category of the flour-exporting nations.

WOOD OIL.

China has risen rapidly in the vegetable-oil world, for within two decades the country has developed a trade in these oils that now nets 30,000,000 taels (a similar amount in United States currency) per year. Wood oil is of particular interest to the United States, as that country takes 75 per cent of a total annual export from China, amounting to 30,000 tons. It has the following uses:

In China.—(1) As a paint oil for outside purposes, excelling linseed oil in drying qualities. (2) The crude oil, applied to native boats, paints, varnishes, and preserves in one operation. (3) With the mineral substances "t'u tsz" and "t'o-shen" added, it serves as a waterproofing varnish for silks, etc. (4) As an adulterant in lacquer varnish. (5) As an illuminant. (6) When mixed with lime and bamboo shavings, for calking native boats. (7) The soot of wood oil produces the best quality of Chinese ink. (8) As a dressing for leather and a varnish for furniture, etc.

In America.—Chiefly for the manufacture of varnish, since it possesses the advantage of drying quickly and of making high-class varnish with cheap gums.

Wood oil is the oil taken from the nuts of two varieties of the *Aleurites.* While the trees are different, the oils by chemical analysis are identical. According to Wilson's "A Naturalist in West China," the "T'ung yu" (*Aleurites fordii*) is essentially a hillside plant, thriving in the most rocky situations and on the poorest of soils where there is a minimum of 29 inches of rainfall, although it will withstand drought as well as a few degrees of frost. The tree seldom reaches more than 25 feet in height and is highly ornamental in foliage and flower, suggestive of possibilities for shade-tree purposes. The fruit is a green, apple-like one, about the size of a small orange, and contains from three to five seeds with about 40 per cent oil content. The trees are found for the most part in the Yangtze region west of Hankow, a large part of the trade centering at Wanhsien. Hankow is the port of export, shipping 80 per cent of the oil. A little goes out through South China via Hongkong. For 1917, Hankow shipped 36,000 tons out of a total trade of 47,000 tons, 30,000 tons of which went abroad. The price at Hankow ranged from 10 to 16 taels per picul of 133⅓ pounds. Buyers must safeguard themselves from adulterated oil, as it is a common native practice to add the cheaper native bean oil. Efforts are being made to cultivate the wood-oil tree in America, with apparent success.

MISCELLANEOUS MANUFACTURED ARTICLES.

ARTIFICIAL FLOWERS.

Artificial flowers are made in Amoy and Canton, from specially prepared pith, so that they look very natural. They are of great variety and beauty and might easily develop into an important article of commerce.

BRAN.

China has at present about 50 modern flour mills, and the industry is only at the inception of its development. One of the problems of the miller in China is the disposition of his bran. Prior to the war about 75,000 tons a year were shipped abroad, a good deal of which, at a freight rate of $5 per ton, found its way to the Pacific coast. Freight rates are now prohibitive, so it can find no market in the United States. Without a dairying industry China finds but little call for bran in the country itself.

CEMENT.

China is favored with excellent limestone deposits in the north and southwest, together with gypsum and other essentials to good cement; and cement of excellent quality is now being produced and is growing in importance in the export trade. This business now amounts to about 80,000 tons a year, including 25,000 tons shipped abroad, with Tientsin, Chinwangtao, Dairen, and Kowloon the principal ports of export in the order named. The Green Island Cement Co., at Hongkong, the pioneer in the field, has a plant capitalized at $3,000,000 Mex. French Indo-China also produces considerable cement of good quality. A few years ago Japan produced annually 4,000,000 barrels, and it was then anticipated that by 1918 its production would be nearly doubled.

DYES.

Just before the outbreak of the war German synthetic indigo was imported into China to the extent of 10,000,000 taels a year, in addition to about three or four million dollars' worth of German aniline dyes. These had replaced in great measure the native vegetable dyes in which China was so rich; in fact, indigo was no longer regarded as one of China's agricultural products. The native dye industry is, by force of circumstances, revived and China's dyes are figuring in the export trade.

Of first importance is indigo. It is grown quite generally throughout China for local purposes, but assumes greater importance in trade in the South. It appears that one acre of ground will produce about 6,000 pounds of indigo dye. According to tests made by the United States Bureau of Foreign and Domestic Commerce the Chinese indigo contains only about 1 per cent of pure indigo. Thus an acre will produce, with a good crop, about 60 pounds of pure indigo. The plants are cut before flowering, steeped in cold water for some days, and well stirred. After the plants are removed the water is again stirred and slaked lime added to precipitate the dye. China exported, in 1918, 5,576 short tons of liquid indigo, valued at $826,026. Kiukiang and Swatow are the principal ports of export.

China's blacks are produced for the most part from gallnuts, the fabrics having first to be dyed blue. Consul General Hosie (British) describes this process in his excellent report on the Province of Szechwan, 1904. The capsules of acorns are also used to produce black.

Yellow is produced from the flower buds of the locust tree (*Sophora japonica*), which are baked to a light brown color, placed in the water, and brought to a boil. Alum is used as a mordant. The powdered roots of *Curcuma longa* or turmeric are also used for a yellow dye, especially for cotton fabrics.

Red is produced from safflower, grown in Szechwan. Balsam (*Impatiens balsamina*), *Anchusia tinctoria*, and *Lawsonia alba* are also used, the latter to produce the rouge used by women. The *Rubia cordifolia*, a creeper, is used to make a deep red.

Green dyes for cotton cloth are produced from the bark of the *Rhamnus parvifolius*, found in Szechwan. Green dye is also made from the leaves of the *Rhamnus tinctorius* and other species of the buckthorn.

Brown dye is produced from the false gambier, grown extensively in southwestern China. The darker browns are produced by the addition of gallnuts and alum. A brown cloth that is very popular in the summer with the Chinese is a dyed grass cloth with a bright luster and a waterproof appearance. Its distinctive qualities are the result of the dyes made from the false gambier.

The vegetable dyes of China are particularly well suited to Chinese rugs. These dyes will outlast the rugs.

China exported 1,044 tons of dyestuffs during 1918, exclusive of indigo.

FANS.

China exports about 50,000,000 fans a year, mostly from Canton and Hangchow, the greater number being palm-leaf fans from Canton.

FIREWORKS.

China invented gunpowder and popularized firecrackers. The cheapest kind of firecracker is made of gunpowder rolled up in coarse bamboo paper with a covering of red paper, red being regarded by the Chinese as bringing good luck. Alum is used to neutralize the smoke. The Canton district is the center of the industry. The Chinese seem to use firecrackers upon every occasion—to speed a parting guest, in wedding celebrations, on festivals and birthdays, and to dispel evil and bring good omens. China exports about $3,000,000 worth a year.

FLOUR.

Before the war China imported large quantities of wheat flour from the United States. In fact, flour was one of the principal items in America's trade with China. High freight rates have prevented shipments of American flour to China, and now one finds China developing an export trade in this product. The 1917 returns of trade show 500,000 barrels exported, more than half of which went to Russia.

The present daily capacity of the 16 roller flour mills of Shanghai is 46,000 bags (11,500 barrels). The 5 mills at Wusih have a daily capacity of 15,400 bags or 3,850 barrels. Hankow's six mills have a capacity of 2,000 barrels. Manchuria, including Harbin, has about 20 mills, with a daily capacity of about 10,000 barrels. Other places in China have, altogether, 15 or 20 mills, with an aggregate capacity of about 7,000 barrels a day. Thus there are in China about 70 modern roller flour mills, with a daily capacity of between 30,000 and 35,000 barrels.

The largest of these mills is the Yung Sheng Flour Mill at Harbin, which claims a daily capacity of more than 4,000 barrels.

The China flour mills manufacture three grades of flour—second, third, and fourth quality. Such first-grade flour as is used in China is imported from the United States. The Chinese mills make 60 per cent second and 40 per cent third and fourth quality flour. To the flour consumer in China whiteness is not an essential test of quality; in fact, a little color is likely to indicate strength. The Chinese desire a strong flour, as much of it is used for manufacture into vermicelli and noodles.

The flour mills generally rely upon flour brokers to dispose of their stocks. These brokers receive a commission of 2.50 taels for each 1,000 bags of flour sold. There are about 30 of these brokers in Shanghai. The brokers often make forward purchases through which they are enabled to dictate the market prices. Foreign firms buying for export purposes are generally obliged to make their purchases through their compradors. The compradors, anticipating the demands of their firms, often make forward purchases and then when the foreign firms are in the market for flour and the prices go up, the compradors are enabled to dispose of their stocks at advanced profits.

The development of the flour industry in China depends upon the development of transportation. It is safe, however, to predict that China will be able to supply its own needs in flour within the near future, if it has not already attained that position. Manchuria and North China will offer splendid opportunities for the flour-milling industry.

HATS.

The manufacture of hats in China is certain to become an important industry. With the cutting of the queue foreign hats displaced the native styles. More than 2,000,000 rush hats are exported each year from Ningpo to the United States. A hat of good quality is being made in Szechwan of palm-leaf fiber. The extensive manufacture of straw braid in Shantung will lead to the manufacture of straw hats in that section.

INK.

Chinese ink is sometimes erroneously called "india ink." It is made of the lampblack of sesame, rapeseed, or wood oil, to which is added varnish and pork fat. This paste is then mixed with glue, musk, or Baroos camphor to scent it and some gold leaf to give it a metallic luster. It is pressed in carved wooden molds or beaten on wooden anvils with steel hammers and then pressed into molds. The best ink comes from wood-oil lampblack collected on the sides of a second earthen jar placed above the one in which the oil is slowly burned. Anhwei Province produces the best ink. There are many grades, the cheapest being produced from coarse soot and glue. China exported, during 1918, 127,200 pounds of Chinese ink, valued at 78,525 taels ($93,680).

LACE.

Foreign missionaries in Chefoo, Shanghai, Foochow, Amoy, and Swatow have introduced lace making among the Chinese women, and considerable lace has been exported from time to time. Silk, linen, and cotton threads are used in Chefoo and linen and cotton in the other places. The lace is made more cheaply than is possible elsewhere because of the low wages paid in China, but a lack of enterprise in changing patterns to meet changing tastes and fashions abroad prevents the industry from assuming larger proportions. The exports for 1918 amounted to 954,713 taels ($1,138,973), as shown by the customs figures.

LACQUER.

Lacquer is scarcely to be considered an article of export, although popular with the Chinese for many centuries and still produced in considerable quantities in China. Foochow is the center of production for a certain high-class lacquer.

MATS AND MATTING.

At one time the making of mats and matting was an enormous industry among the peoples of the lowlands in southern Kwangtung, where the grass (*Arundo mitis*) was cultivated extensively. The seeds were planted in November and the reeds harvested in July and August. The fields are highly cultivated, and the grass grows from 5 to 7 feet high. The reed is three cornered, and, after harvesting, is stripped and placed in the sun to dry. This work is done by women and children. When dried the strips are bundled into bales of a picul in weight (133⅓ pounds) and disposed of in the market. For manufacture the grass is carefully sorted for quality and size. The dyeing is done before the weaving. The native loom is crude and accounts in a measure for the lack of necessary development in the industry to keep pace with changing demands in the foreign markets. During the last 10 years Japanese matting and mats have competed severely with Canton products in the American market. The Japanese produced articles better suited to the American demands, and the Canton industry was not prepared to adjust itself to the changes. Furthermore. with the war came a shortage of dyes and high freight rates, which affected the Canton industry far more seriously than they did the Japanese industry, which can depend upon Government assistance, especially in obtaining freight space at reasonable rates. Prior to 1908 Canton exported 500,000 rolls of matting annually, as compared with 21,500 rolls in 1918.

MEDICINES.

The materia medica of China is very rich. A nation with a civilization dating back 4,000 years could hardly have done otherwise than develop a considerable number of products efficacious in combating disease. Consul General Hosie, in his report on the Province of Szechwan, gives a list of 189 vegetable and 31 animal medicines made and used by the Chinese of Szechwan from time immemorial. He states that licorice and rhubarb are the chief Szechwan drugs that interest foreigners. It is not to be concluded that the 220 drugs listed by Mr. Hosie (which list by no means exhausts the materia medica of Szechwan) are all, or in large part, efficacious. The great materia medica compiled in the sixteenth century is composed of 52 volumes and contains 1,892 remedies. Among the drugs most used are ginseng, rhubarb, licorice, pomegranate root, aconite, opium, arsenic, and mercury. Various superstitions exist in China, and until science comes to the aid of the people one need expect no really intelligent discrimination in the use of the many medicines in which the country abounds. Yunnan is rich in herbs and medicines. Some of the American missionary physicians have written on the materia medica of China, and those interested are advised to consult their articles. The July, 1917, number of the Far Eastern Review contains an interesting article by Dr. William W. Cadbury. American manufacturers of drugs will find in China some valuable sources of supply for raw materials.

China exports annually more than $3,000,000 (gold) worth of medicines. The domestic trade in medicines is enormous. Foreign exploiters of proprietary medicines have found China a rich field for their products, when extensively and attractively advertised. The Japanese nostrum "Jin Tan," translated "benevolent pill," which is being sold to the people all over China in increasingly large quantities through a most energetic and enterprising advertising campaign, uses the slogan, "From death to life"—in Chinese characters, of course.

PAPER.

China invented paper, but the processes of manufacture still remain crude. Rice straw is most commonly used, but only for coarse papers. Bamboo, treated with chloride of lime and soda to reduce it to a pulp, forms the material second in importance in the manufacture of paper in China. Fukien Province produces the largest quantity of paper, and Kiangsi Province ranks second, with Szechwan third. China exported paper to the value of 3,037,942 taels ($3,624,266) during 1918, but almost entirely to territory in proximity to China, with large Chinese populations.

PEWTER WARE.

Wenchow, Swatow, and Ningpo are the centers of pewter-ware manufacture in China. The tin used comes in slabs from Yunnan.

POTTERY, PORCELAIN, AND CHINAWARE.

Pottery and porcelain seem to have had their inception in China; at least, the Chinese claim the invention of the potter's wheel. China's exports of chinaware and porcelain amount to about 1,500,000 taels a year. the greater part being shipped from Kiukiang, which is the port for the Kingtehchen porcelain district. The porcelain industry at Kingtehchen, in Kiangsi, was established during the Han Dynasty, as the imperial pottery. It is now making cheap porcelains and recently began the imitation of foreign patterns with some success. It is stated that the potters intend to imitate some of the old patterns made during the Tang Dynasty. There are more than 100 furnaces at Kingtehchen, employing about 150,000 men. For information concerning old Chinese porcelains, books on Chinese art and Chinese porcelains should be consulted.

The exports of pottery and earthenware amount to 600,000 to 1,000,000 taels per year. Shanghai, Swatow, and Canton are the principal ports from which these goods are exported.

RUGS.

The war lifted the Chinese rug industry, with its centuries of indifferent activity, from a position of obscurity in relation to the West to a place of popularity and permanency in Western markets, principally because the supply of oriental rugs from Persia and Turkey was cut off from the American market at a time when large accumulations of wealth had increased the demand. During the year 1917 China exported more than $850,000 (gold) worth of rugs. In 1918 the value was $438,958. A report, written by Mr. Rodney Gilbert, an American who traveled extensively through the rug-producing centers of China, was published in COMMERCE REPORTS for April 25, 1917. Following are portions of this report:

The Tientsin rug was not originally produced in Tientsin, but in a half dozen big cities on the Mongol border, near the wool-producing areas between the Gulf of Chihli and the Pamirs.

Among the Chinese, Ninghsia rugs are considered the best and Peking rugs second best. Other cities which have acquired reputations for rug making are Tientsin, Salachi, Hami, Kuchar, Khotan, and Kashgar. There is no great art in the manufacture, except from the Chinese viewpoint of design in which the European of a commercial bent is not vastly interested, and rugs are judged by the quality of the wool and the permanency of the dyes, rather than by the skill displayed in the weaving. As a matter of fact the Chinese rug, like most produced in Asia, is not really woven but is tied, the most important mechanism in its structure being the fingers of the small boys who sit in a row and do the tedious work. Upon a heavy wooden frame, reaching from floor to ceiling, is stretched a screen of cotton strings, the warp, like the strings of a piano. The master craftsman, who has a small pattern of the rug he wishes to make in color, sketches the design on white paper, according to the actual scale of the rug and this big paper pattern is woven in and out of the strings of the warp. When it is in position the design is painted off on the warp with black ink, the pattern is removed and the small boys set to work tying knots and cutting string—building the rug, literally, from the ground up—working in various colors as the pattern demands.

There is no real wool in these rugs, the only cross strands being the "filler" which is run in loosely after each row of knots has been tied and pounded down. The knot tier sits on a bench before the upright woof with a few primitive tools by his side, and with balls of the various yarns which he expects to use suspended behind him. He reaches back, catches the loose end of the blue, red, or green ball, as occasion requires, ties two strands of the warp together and cuts the yarn so that the two ends of his knot protrude toward him, forming integral factors in the carpet's pile. One knot tied, he takes the second string of the warp and ties it to the third with a similar knot, using the color of yarn demanded by the pattern. When he has finished a row of knots he weaves in a length of filler and pounds down his work with a heavy iron fork which is thrust into the warp. A pair of scissors for trimming the pile and "carving" the design completes the weaver's mechanical equipment.

A rug 6 feet long by 3 wide, made of good material, is worth $18 to $25, and represents the incessant labor of a knot tier who works 12 hours a day for 40 days, not to mention the yarn, cotton string, patterns, and dyes used in the manufacture. A skilled master weaver who can design and superintend the manufacture of a rug may get as much as $20 a month, while the little apprentices, who do the bulk of the work, get their food, worth about $3 a month, and are grateful.

Rugs bought from the maker may be worth from 90 cents a square foot up to $4, according to the quality of the wool used and the closeness of the texture. In Peking a foot of rug may have from 80 to 120 strands, and the wool used varies from the softest and finest lamb's wool in carpets that are rather tapestries than floor rugs, through the expensive "jung," or under wool, to the coarsest of unpicked sheep's wool.

The wool that enters into Chinese rugs is grown in Mongolia.

The matter of dyes enters largely into Chinese appreciation of a rug. The Ninghsia dyes never fade, but gain in luster as they age, and a 24-year-old carpet, far from being worn out, has a silky brilliance and gloss which can not be imitated. The native dyes used in Peking, when properly set, will outlast the carpet, and nothing has yet been discovered in China which will bleach the rug without ruining the carpet, if the dyer has done his work conscientiously. Actual experiment has shown that it is possible to boil a new rug to shreds without boiling the dyes out of the yarn.

Native herbs, woods, and seeds enter into the dye making. Minerals are rarely used, and a conscientious rug maker eschews aniline. Their blue is indigo; the "imperial yellow" is made from the blossoms of a species of locust tree, which also yields black; brown comes from a kind of acorn husk; purple from hollyhocks; and yellows, reds, greens, and other shades from various native woods, mostly cheap and abundant.

The dyer takes as much dyewood or seed as his judgment prompts him to use, throws it into a great pot of boiling water, and when the liquid takes on color throws in the yarn and sets a man to stirring it. The fixing of the colors is done with alum. The colors in a well-dyed Peking rug temper evenly and bear any amount of washing.

The recent carpet boom has made the Chinese carpet an article of trade and has given it the status of a useful ornamental floor covering. As such it must be made in good taste. The successful buyers in the carpet centers of the north have realized this and have worked hard to impress their ideas upon the native artists, with the result that the Chinese are developing a perception of color and arrangement as the foreigner sees them, and are relegating their old patterns to the dust bin. Rug making within the range of the influence of these buyers may be said to have entered upon a permanent and hopeful evolution.

During the past few years Shanghai has been developing the rug industry, and hopes are entertained that with better organization and with the use of machinery a standardized high-grade rug can be produced.

The reader interested in this subject is advised to consult Vice Consul Jay C. Huston's report on "The Rug Industry of North China," which appeared in COMMERCE REPORTS for July 8, 1918.

STRAW BRAID.

The war has played havoc with the straw-braid industry of Shantung, which prior thereto had assumed a position of considerable importance in the trade of the Province, although the exports varied considerably from year to year on account of changes in the style of hats, for which the straw braid was used, and variations in the supplies of wheat straw, affected by crop conditions. This industry developed around the little town of Shaho, in northwestern Shantung, where the large peasant population became very adept at preparing the braid for the market. Men, women, and children throughout that section of the Province, after the wheat harvest and while awaiting the ripening of the fall crops, engaged, almost in a body, in the stripping. cutting, sorting, bleaching, plaiting, joining together, and bundling of the product, ready for the small buyers who go about collecting the supplies to offer to the market. It was eventually sold to foreign merchants at Tsingtau, which had succeeded Chefoo as the port of export, and then shipped to Luton, England, where it was rebleached and distributed to the markets in Europe and America, which used this braid for straw-hat manufacture. The exports averaged about 7,000,000 taels a year from 1910 to 1914. They had fallen in 1917 to 2,406,683 taels because of the great difficulties in getting permits and space to export the product to England, the high silver exchange, and the disturbed conditions in Shantung, which drove the trade almost entirely away from the port of Tsingtau. The American market during 1917 imported via Tientsin the bulk of the Shantung straw braid, which was bleached in the United States and some shipped to South America. In 1918 China's exports of straw braid were valued at 4,167,659 taels ($4,972,017). It is expected, with the termination of the war, that the straw-braid trade will revive.

VERMICELLI AND MACARONI.

The manufacture of vermicelli and macaroni in China is an enormous industry and is carried on almost entirely by hand. Wheat, beans, and rice are the principal flours used. At Chefoo the industry assumes greater proportions than anywhere else in China, and there the vermicelli is principally a green-bean product. Hankow, Amoy, and Swatow are also important centers of the industry. Vermicelli is eaten throughout all sections of the country. China exports annually about 15,000 tons of vermicelli of all sorts.

ANIMAL INDUSTRIES IN CHINA.

By Consul Albert W. Pontius, Canton.[1]

INTRODUCTION.

With the present limited available data on Chinese animal industries, a comprehensive treatise that would do justice to the subject is hardly possible. The notes and data assembled in this chapter are for the purpose of giving to those interested in the problem of food supply and the development of industries in China a general idea of the kinds, number, value, and extent of the live-stock production in that country, and the future of the industry.

The Canton Christian College has been greatly handicapped in presenting courses in agriculture by the lack of published material, either in Chinese or in English, of a scientific or practical bearing on the subject. Very little investigational work, and still less experimental work, has been done in the agricultural industries, especially in the animal industries. The few works secured so far consist of four small illustrated pamphlets. In these books the author first briefly discusses the importance of the intelligent handling of live stock, and this is followed with instructions for judging animals, a formula for telling the age of the horse up to 32 years by its teeth, and instructions for treating sick animals. About two-thirds of the material is poetry and very difficult to translate, especially as many old-style characters are used. It is interesting to note that while veterinary material is based mainly on superstition, descriptions of common diseases are well given, and the instructions for judging and caring for the live stock are, in general, the same as are followed to-day by intelligent farmers. Some extensive and thorough reports of the agricultural industries in Shantung have been made by the Japanese military authorities there.

Domesticated animals in China include poultry, swine, cattle, water buffaloes, and horses. In the northern Provinces the donkey, the mule, and the double-humped camel are also raised. The yak, whose native home is in Tibet, is found to some extent in Szechwan. The poultry and swine industries are by far the largest of the live-stock industries. Nearly every family in the villages in all parts of China raises fowls, and many keep one or more brood sows.

POULTRY.

TOTAL NUMBER OF FOWLS AND AVERAGE EGG PRODUCTION.

Prof. F. H. King, in his well-known and interesting book, "Farmers of Forty Centuries," states that in Japan there are 16,500,000 fowls, or about one fowl for every three persons in that country. The number of fowls raised to maturity in the United States in 1911 was 300,000,000, or three for every person. There are several varying estimates on the number of fowls in China. Striking a medium between the number in Japan and in the United States, China would have one bird for each inhabitant, or approximately 400,000,000, and judging from the number of fowl seen everywhere, this is not an overestimate. Further, the Chinese are heavy users of poultry and eggs, and probably consume as much, if not more, per capita than does the average American. Despite the heavy consumption the supply not only keeps up with the demand, but is enough to permit a fairly large export of poultry and poultry products.

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[1] The information for this chapter was supplied by the Canton Christian College.

According to the Japanese authorities the average egg production per hen in Shantung is 84, which is high compared with other countries, the average in the United States and Canada being about 75. It is also higher than investigations so far have shown it to be in Canton. In 1918 a production experiment lasting a year was conducted with 30 hens, of the common mixed variety seen everywhere in the villages of that region. They were given the feed commonly fed to fowls by the villagers. The lowest record was 14, the highest 104, and the average for all 72. The higher production per hen in Shantung Province is probably due to the feed used in that region, which consists principally of beans, whole and cracked. Beans contain a high percentage of protein and make an excellent food for egg production.

VARIETIES OF CHICKENS FOUND IN CHINA.

There are a number of breeds of poultry native to China, some of which have become very popular in America and Europe. The Cochin breed of Swatow, of which there are two varieties in China, the White and the Buff, and the Black Langshan, known in China as the Black Shanghai, are Chinese breeds that are common in most parts of the world where attention is given to poultry production. These are heavy breeds and are raised especially for meat, although they are also good layers of large eggs. The hens weigh from 4 to 6 pounds and the cocks from 5 to 9 pounds.

Two other distinct native breeds are the Silkie and the Frizzle. Literature written 1,000 years ago mentions these peculiar breeds. These fowls are not very common, the reason given being that they are difficult to raise, and that they are poor layers. Their meat is considered by the Chinese as having medicinal value, and is eaten for a tonic. The skin of the Silkie is dark blue, and a thin, black film surrounds the bone. In both breeds the bill and the exposed skin on the head, feet, and legs are deep blue. The Silkies have downy feathers, white being the most common color. The Frizzles are black and have peculiar feathers which curl back on themselves. Their price is usually twice that of ordinary fowls. In America these breeds are purely ornamental and are not considered as having much utility value.

The mixed colored fowls of Kwangtung, resulting from crossing several varieties, are good layers and their meat is good. They weigh from 2 to 4 pounds. The chief objection to them is that it takes them much longer to reach roasting size than the larger breeds. Their eggs are small, an average of 9¼ eggs being required to weigh 1 pound.

RAISING OF DUCKS AND GEESE.

Ducks and geese are raised in large numbers in many parts of China. The numerous waterways, both natural and artificial, afford ideal conditions and cheap feeding for these classes of poultry. While there is no recognized breed of ducks in southern China, the White Peking duck of North China has become established the world over as the best variety of meat duck. It was introduced into England in 1873 and into the United States the following year.

In the region of Canton and most parts of southern China the common duck is a small dark gray or white and gray bird, weighing from 3 to 5 pounds. It is a very good eating duck, and is very popular used either fresh, roasted, or dried. In the northern part of Kwangtung, a gray duck weighing from 8 to 12 pounds is found. Ducks of this breed are very good layers and the meat is said to be excellent. Because of their ability to fly the Chinese consider them as being closely related to wild duck, although they are not timid or difficult to raise. The reason for their not being more widely distributed and more popular is probably because of this flying habit. A fairly high fence must be provided for them, or the feathers on a wing clipped.

Two of the world's best varieties of geese, the Chinese white and the Chinese brown, have their origin in China. To-day they are found in most parts of China, America, and England. The Chinese geese are the most beautiful of all varieties, and are in demand for ornamenting lakes and lagoons of public and private parks. They are also superior for practical purposes, outrivaling all other breeds and varieties in egg production and in the quality of their meat. Their bodies are plump and round and they produce a good quality of feathers and down. They are medium in size, mature specimens weighing from 10 to 14 pounds.

In general appearance the Chinese geese have long necks carried very upright, and a large orange-colored round knob or protuberance on top of the bill at its base. The larger the knob the better. In the south a small gray variety is common. It is not as ornamental as the white and gray species but has meat of good quality. The protuberance on the base of its bill is colored black.

CHINESE INCUBATORS.

Some chickens are hatched in the natural way, but by far the greater number are hatched in large incubator shops throughout the country. In the vicinity of Canton there are 15 Chinese incubators, which hatch an average of 2,800 chickens and ducks a day during the hatching season from March until October. Estimating that half of these grow to maturity, nearly 5,000,000 fowls are supplied each year to Canton and surrounding villages by the incubator shops. The Chinese method of incubating eggs is economical and efficient when it is desired to produce poultry in large numbers, and it is strange that the method has not been adopted for hatching eggs on a commercial scale in other countries.

Wuchow, on the West River, is probably the largest poultry-producing center in the south. The customs returns show that, after supplying the local demand, that city exports an average of 2,500,000 birds a year to Macao and Hongkong. Nanking, Hankow, and Yeungkong rank also among the large poultry-producing centers of China.

The methods for applying heat in the Chinese incubators are similar to those used by the Egyptians 4,000 years ago in similar incubators, ruins of which still exist in the Nile River Valley. On the first day the eggs are thoroughly warmed to the proper incubating temperature, of 103° F. or a little less, by placing them in a brick, ovenlike room, usually 6 feet deep, 12 feet long, and 10 feet high. The eggs are placed in baskets arranged on shelves around the walls of this room, each basket holding 200 or 300 eggs. In the larger shops as many as 40 or 50 of these baskets may be found in this oven at the same time. Heat is furnished by burning charcoal in earthenware pots placed on the floor of the room. Sometimes baskets of eggs are placed in large stone jars and a slow charcoal fire is kept burning continuously against or underneath the outside of the jar. This method is largely used at Shanghai, Hankow, and other places in the north where the climate is cooler and constant application of heat is necessary through most of the hatching season. Another method used in Honam is to place the eggs on the roof of the shop in warm sunlight until they are thoroughly heated through to the right temperature.

After the eggs have been heated to the proper temperature. either in the oven or in the sun, they are placed in cylindrical baskets about 30 inches deep and 20 inches in diameter. Each basket holds about 1,000 eggs. The walls of the basket are about 1¼ inches thick, and are made of firmly packed rice straw held in place with wicker or bamboo both inside and outside. The baskets are lined with a heavy gray paper, somewhat like asbestos. This paper and the basket itself is thoroughly warmed before putting in the eggs, which are arranged in layers, each layer being separated by a piece of cloth about 2 feet square. Twice a day the eggs are changed from one basket to another. The operator simply grasps the corners of the cloth, and in so doing the eggs naturally tumble together in a heap in the center. He then transfers it with the eggs to another basket. This method takes the place of the slow method of turning eggs used with modern incubators, and is most efficient, requiring only about one-tenth the time. Transferring the eggs from one basket to another by this method also gives the airing considered necessary for the production of strong healthy chickens.

The eggs are usually kept in the baskets 14 days, and then transferred to large trays, 6 feet wide, 18 feet long, and 3 inches deep. Each tray holds about 10,000 eggs. The bottom of the tray is lined with the same heavy paper with which the baskets are lined. The eggs are also covered with this paper, with blankets, or with both. The amount of covering depends, of course, on the weather and the period of incubation. In warm weather no covers are needed during the last two or three days. Just before hatching time, the number of eggs in the trays is reduced to one layer, and an empty space of about 2 feet is left at one end toward which the eggs are turned or rolled twice a day.

The eggs are candled twice, usually on the third and seventh days, and all infertile eggs are sold so that there is very little loss through unhatched eggs. Throughout the incubation period careful watch is kept over the temperature. No thermometer is used, but the operator raises the lid or a blanket, removes an egg and presses the large end against a closed eyelid where the skin is very sensitive to temperature. Long practice has taught him to judge differences in temperature quickly and accurately. The men sleep in the room with the eggs, or in adjoining rooms. Someone is on duty constantly, examining and regulating each basket or tray according to its individual needs.

The chickens when hatched are placed in circular bamboo trays about 3 feet in diameter and 8 inches deep. They are ready for sale as soon as dry. The hatching percentage usually runs about 75 per cent of the fowl eggs and about 90 per cent of the duck eggs. This average hatch is quite fair, and, with better sanitation, ventilation, and construction of buildings, and the use of thermometers, this method of hatching eggs on a large scale would be far more economical and efficient than hatching chickens in any of our so-called modern incubators.

In Canton the eggs are usually purchased at 2 cents local silver each and sold at from 4 to 6 cents each, the price depending on the demand and the season. The chickens and ducklings are usually contracted for in large lots by chicken dealers and large duck feeders. Large chicken-feeding farms are not common, but there are many duck farms on Honam Island, feeding from 5,000 to 50,000 ducks at one time. These are purchased from the commercial incubators when about a day old in lots up to 40,000, and fed for about 100 days, when they are sold in the Canton markets.

SWINE INDUSTRY.

NUMBER AND GENERAL CHARACTERISTICS OF ANIMALS.

Of the farm animals in China, next in importance to poultry is the pig. Prof. King estimates the number of pigs raised each year in Shantung at about 25,000,000. A conservative estimate of the number of pigs raised in China each year would be 100,000,000. The value of the annual yearly export of swine above imports for the years 1915 to 1917 was 2,300,000 taels.[1] Most of the hogs were exported to Hongkong and Russia. A large part of the hogs purchased by Hongkong are converted into lard and shipped to Liverpool.

Hogs in different parts of China vary considerably in type, but in general there are two types. In most parts of the country is found the common white and black swayed-back hog. They are of the fat or lard type. Their meat is of good quality and cures fairly well. They are fine boned and smooth. Hogs with wrinkled sides are seldom seen. They are slow in maturing, making an average gain at 6 months of age of about 0.45 pound a day on full feed.

METHOD OF RAISING PIGS—HANDLING OF FRESH MEAT.

Most farmers who raise hogs keep from one to six brood sows, and the litters are large. During the day the sow and pigs roam at will through the narrow stone streets of the village, picking up what edible garbage they can find. Three times a day the sow and pigs are fed a mixture of a cheap grade of rice and rice bran, and sometimes wheat bran. Wheat bran is known to be better feed than rice bran, but is usually higher in price. Sometimes wheat and rice shorts are fed. In the vicinity of breweries, brewers' grains, a by-product of the rice-wine industry, forms a large part of the ration. Vegetables and green cut grass are also fed. The rice is always cooked.

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[1] See second paragraph of footnote on p. 124.

In regions where corn is as cheap and available as rice, it furnishes the main fattening part of the ration. At night the hogs are inclosed in a room usually next to that of the owner's living quarters, the floor of which is paved with tile or brick. Sometimes a corner of the living rooms is fenced off for the sow and her family. The floor is usually kept very clean, which is not difficult, as a pig is the cleanest of animals if given a chance to keep so. The average hog in China is raised on clean food and is not a scavenger. It is fairly free from diseases, except for hog cholera, which is very prevalent.

About 1,000 hogs are killed every day in small Canton butcher shops. The hogs are butchered early in the morning in small slaughterhouses and delivered immediately to the retail stores. In some shops the hogs are butchered in the rear of the retail store. Dishonest butchers have an interesting method of injecting water into the hogs just after they have been killed and bled. The carcass of a hog may be increased by several pounds by thus watering the meat. It is difficult to detect such meat until it is eaten. It has a poor flavor compared with normal meat, and will not cure well.

YUNNAN HOGS—MODERN BREEDS.

In the hilly and wooded regions of the western Provinces of Yunnan and Szechwan the type of hog chiefly raised is the bacon hog. It is stated that so far attempts to raise it in Hongkong have shown that it can not compete with the common lard hog in the efficiency of utilizing feed. The Yunnan ham, however, is well known in all parts of China because of its excellent qualities.

Modern breeds of hogs have not yet been introduced into China. The Hongkong Dairy Farm has done considerable experimenting with different breeds, and now uses the English Midyorkshire almost exclusively, both pure and in crossing with the native hogs. They usually have on hand from 600 to 900 of this breed. The Berkshire, an English breed, might prove a success in this climate, as it has in the Philippine Islands, where all other breeds up to the present have been little more than failures.

CATTLE RAISING.

NUMBER OF ANIMALS AND METHODS EMPLOYED.

Shantung, Chihli, and Honan, in the north, and Szechwan, Yunnan, and Kwangsi Provinces, in the southwest, produce cattle in largest numbers. Conservative estimates would place the number of native cattle and buffalos at 50,000,000. The export of cattle from China is small.

The method of raising cattle is very simple. In the country districts of the Shantung region it is not uncommon to find from 30 to 60 head in one small village which are usually taken care of by one coolie. When the cattle are not employed they are turned loose on the fields to feed. During the busy farming season the cattle are fed three times a day, but only twice a day when farming is not in full swing. The food consists of about 16 catties (1 catty=1⅓ pounds) of straw and 4 catties of mixed feed a day. The straw feed is mostly millet, but wheat straw is also fed, and in some places dry peanut stems and sweet potato vines. The mixed feed is composed of kaoliang, beans, and the like, mixed with cut straw or hay, and water. The Shantung cattle are large and weigh from 600 to 1,000 catties.

The feed, however, is different in different localities. In the Canton region the grain fed is generally broken rice and wheat bran. The cattle in the south are not as large as the Shantung cattle if the Japanese estimates are correct. The average cow weighs 500 catties and the bull 800 catties, although some individuals have been noted that weigh as much as 1,000 catties when fat.

HUMPED SPECIES NATIVE TO CHINA.

The native cattle of China are of the humped species common in the Orient. The main difference between these cattle and the European cattle is in the enlargement of the hump on the top of the shoulders. The meat in this hump is said to be of good quality. The color of the cattle in China is much like the color of Jerseys, varying from a yellow red to a brown red and sometimes pure black. Spotted or white cattle are not common, chiefly because the meat of an animal with white color markings is considered inferior. Fawn is a quite common color. The nostrils are black, with a gray or mealy colored ring around the muzzle just above the nostrils. The tongue is black. It is a peculiar coincidence that all of the above color characteristics of these cattle are also true of the Jerseys. While the amount of milk yielded is very small—so small that cows are seldom used for milking—the quality is very good, the fat varying from 6 to 8 per cent. Although the cattle are much alike in color and conformation, there is some difference in types in different communities.

Three distinct grades of cattle reach the Hongkong market, coming from different regions. Those coming from the east coast of Kwangtung Province, from the region south of Swatow, are far superior in size and beef characteristics to those raised in the region of Canton, and their dressed meat sells higher. Cattle from the West River region are somewhat better than the Canton cattle, but not as good as those from the Swatow region. Cattle are sold by the head and not weighed. The usual price for an individual weighing from 600 to 800 pounds is from $28 to $40 Mex.[1]

THE WATER BUFFALO.

The water buffalo is common in all parts of China as far north as Shanghai. It is most common in regions where paddy rice is the main crop, where it finds its chief use as a draft animal in the wet paddy fields. It is quite generally distributed all over the world and used as a draft animal wherever paddy or wet-land rice is grown. The common weight of the water buffalo in China ranges from 1,200 to 1,600 pounds. In some breeds in India the average weight is as high as 1,600 to 1,800 pounds, and the height at the shoulders as much as 6½ feet.

USES OF NATIVE CATTLE AND BUFFALOS.

The native cow and buffalo is primarily used for draft purposes in the fields. When the animal becomes too old for efficient service it is fattened and sold to the butcher. The horns are used for making various toilet articles and knife handles. Much horn is exported to

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[1] See footnote on p. 124.

Europe and America each year, as are also dried hides, for leather, of both the cow and buffalo. In China there is only one type of cattle, which might be called a beef and draft type. In India there are many breeds, different in color, size, and in the quantity of milk yielded. The humped cow in China gives so little milk that pure native cattle are not used in the dairies. The Chinese buffalo cows as a rule give very little milk, usually less than 4 pounds a day, which, however, is as much or more than is given by the Chinese humped cow.

The percentage of fat and protein in the milk of the Chinese buffalo cow is very high, higher than that of buffaloes in other parts of the world. More than 800 analyses which have been made during the past two and one-half years of 50 buffalo cows have shown an average of 12.60 per cent fat. The analyses have shown the milk to contain 6.04 per cent protein, 3.70 per cent sugar, 0.86 ash, and 76.80 per cent water. Similar analyses have shown that European cows' milk in southern China contains: Fat, 3.80; proteids, 3.23; sugar, 5.96; ash, 0.81; and water, 86.20. The total of solids in buffalo milk is 23.20 per cent, as compared with 13.80 in European cows' milk. Three buffalo cows in one dairy herd gave milk testing as much as 15 per cent fat for a period covering 7 months. None of the cows averaged less than 10 per cent fat for a lactation period.

Although individual buffalo cows in other regions have given milk with more than 10 per cent fat, the average has been far from that of southern China. Milk of the Chinese buffalo is pure white in color, and butter made from it contains but a faint tint, if any, of yellow. It is wholesome and palatable when produced under sanitary conditions. Like most kinds of milk, when clean it contains little or no odor. The objectionable flavor and odor often found associated with buffalo milk is due to foreign material, such as dirt or hairs that have entered the milk during the milking operation: this is true also of milk from European cows.

EUROPEAN BREEDS OF CATTLE IN CHINA.

Up to the present time there has been no attempt to introduce cattle of the modern beef breeds into China. On the other hand, dairy breeds, consisting of the Jersey, Guernsey, Ayrshire, and Holstein, have been introduced and are becoming popular as dairy cattle. This is especially true in the cities of Peking, Shanghai, and Canton. Dairy cattle were introduced also by the Germans at Tsingtau. In the past the Chinese have not been users of milk, but contact with the foreigner has taught them its value as a food, and in the larger cities there is an ever-increasing demand for this product. In Canton 25 years ago there were practically no cattle used for dairy purposes. To-day there are about 550 cows of foreign breeds, and about 50 buffaloes, kept exclusively for milk. The Hongkong Dairy Farm and other dairies in Victoria and Kowloon, with a total of 1,200 cows, depend largely on the Chinese residents in those places for the sale of their milk.

The production of better and more live stock must come as the country develops industrially, commercially, and otherwise. Good police protection, wagon roads, and railways, a demand for export products, and an increasing demand for milk will all be incentives for expansion of the live-stock industries. There is enough pasture land on the hills of China not now being utilized, except for fuel, to produce twice the present number of cattle. Cattle sell for about one-half the price obtained in America. Better prices offered for export beef, which will come with development, will stimulate the beef industry, and the demand for milk within China itself must be met. With the present prices received for milk and the price at which imported butter is sold, there are few other industries offering better opportunities for young men well-trained in the principles of dairying and breeding and prepared to produce sanitary milk, butter, and other dairy products.

IMPROVEMENT OF LIVE STOCK.

With the development of agricultural industries will come a demand for the improvement of different classes of live stock now raised in China. Three methods of improvement suggest themselves, one of which is improvement within the breed, without the introduction of foreign blood. A few generations of intelligent selection of individuals for breeding purposes would greatly improve the cattle for beef purposes. Because of the small amount of milk given by native humped cows, draft and beef production will probably always remain the function of this class. Breeding for improvement without the introduction of foreign blood should be followed with all classes of live stock.

The buffalo in China has been chiefly a draft animal and is used for beef as soon as its usefulness is ended. Of recent years some dairies in Canton and Hongkong have been using the buffalo for milk, and by selection and good feeding have now cows giving up to 12 pounds and more of milk a day, testing from 6 to 15 per cent fat.

A second method of improvement would be to introduce males of improved breeds for mating with native cows. Crossing the Berkshire breed of hogs with the native pigs in the Philippines has made a profitable hog out of the island runt, and would no doubt also improve the Chinese hog. In Hongkong the Midyorkshire hog is proving a success both crossed with native hogs and when kept pure.

Crossing the native cattle with modern breeds of beef cattle should no doubt improve the native cattle for beef purposes. However, such crossing of native humped breeds of cattle with European breeds has not proven popular in the Philippines and in India, because while the cross produces better beef cattle, such cattle are of little use for draft. The chief reason the native cattle are so well adapted to work is because of the hump, against which the yoke fits so well. In animals containing foreign blood the hump is very small or there is none at all.

The third method suggested for improvement of native live stock is to secure pure-bred animals of desirable breed and continue to breed them pure.

The first method suggested for improvement, that of selection within the native breed, is safest, but slow in bringing results. Introducing modern improved breeds will bring better results, provided only that good, healthy animals are secured and intelligent breeding is practiced. The diseases common in China and not common in regions from which imported cattle come should be taken into consideration and guarded against, or the results to individual breeders are apt to prove disastrous financially.

Men trained in animal breeding and feeding are much needed in China to improve the quality of live stock by intelligent feeding and care and by introducing foreign breeds. Veterinarians are needed to take up a thorough study of diseases and their control and to build laboratories for the production of anti-cholera and anti-rinderpest serums for the prevention of these two great plagues of the live-stock industry. Canton is in need of Government sanitary inspectors, with adequate laws to support them, to prevent the sale of diseased meat and, above all, the sale of unwholesome milk, for, while the danger of eating diseased meat is serious enough, the danger of contracting diseases from contaminated milk is apparent to all. Every cow with European blood whose milk is being sold to the public should be tested for tuberculosis and reacting animals be rejected as dairy animals. It would not be necessary to test native cows or buffaloes, as they are apparently immune to the disease.

One has but to visit the dairies in Canton, with the possible exception of one, and note the health of the animals kept for milk and the insanitary conditions under which milk is produced to realize the need of veterinary and sanitary inspections and authority to compel the production of clean milk.

Some of the dairies have good bulls of modern dairy breeds, but can not produce good milkers because of their method of raising calves. From the time the calves are born they are kept tied up in a barn and are never turned out even in a dry lot to exercise. Naturally the cows in even the best dairies are poor milk cows, small in size and some with every indication of tuberculosis, giving an average of from 15 to 20 pounds a day of what is very probably contaminated milk, while if properly cared for they might give from 30 to 40 pounds of good wholesome milk.

Many dairies in Canton at present add water to the milk sold in order to increase their profits, and there is added the danger of disease germs from impure water, to say nothing of the unfairness to honest dairymen. Milk put on sale by the Canton dairies should be analyzed with a Babcock tester for fat and a check be kept on watering milk. Buffalo milk containing less than 10 per cent fat and European cows' milk containing less than 3 per cent fat is undoubtedly watered milk. The dairymen found guilty of watering should be heavily fined, and repetition of the offense should cancel the right of such a dairy to sell milk to the public. Buffalo milk should sell for at least twice as much as foreign cows' milk. Even at such a price it would be a cheaper food because of the high percentage of fat that it contains.

PROGRESS OF FORESTRY IN CHINA.

By John H. Reisner, Dean of the College of Agriculture and Forestry, University of Nanking.

The best evidence that interest in forestry in a practical way is increasing in China is the large number of hsien magistrates, agricultural societies, agricultural and forestry companies, and others that have bought either seeds and seedlings for nurseries or trees for forest planting this last spring from various forestry stations and institutions. It is interesting to note, and it argues well for the future, that forestry in China seems to be developing from the bottom upward, from the lower and smaller political units to the higher and larger units, with the central Government doing practically nothing at all. This in in marked contrast to forestry in western countries, where the work is usually carried on by, and is dependent upon, the central Government. One has frequently heard the criticism that there can be no hope for forestry in China until the central Government takes hold, organizes, and provides an adequate budget for the prosecution of the work on a national scale, and until national laws can be passed and adequate administration provided guaranteeing protection to those who plant trees. The writer does not believe this is true. From what he has seen and personally experienced, he believes that in and through the smaller Government units and semi-political agencies, such as agricultural societies, forestry can be placed on a good working basis—on a progressive basis that naturally will be greatly strengthened when the central Government takes hold of the problem, but that can and will function independently in the meantime.

It has not been practicable to gather complete data for this chapter except from Mr. Soong Ding-mo, of the First Provincial Forestry School, and the University of Nanking nurseries, but, between the two, seeds and trees were supplied this last spring for nurseries or forest planting (mostly for nurseries) to 159 district magistrates, agricultural societies, companies, experiment stations, and individuals. In addition to these the "Educational Forest Enterprise," which will be mentioned again in more detail, supplied seeds and trees to the amount of about $2,500,[a] and the Yangchow nurseries (probably the largest private nurseries in Kiangsu Province, if not in any Province), which have a capacity of several million seedlings, are reported to have had a good year's business. Seventy-five per cent of the seeds and trees supplied by the First Provincial Forest Station were distributed within the Province. Only about 12 per cent of those sent out by the University nurseries stayed in Kiangsu Province, while 88 per cent were distributed in Anhwei, Honan, Chihli, Shantung, and Chekiang, in the order of importance indicated. This is an entirely new development, and with education, demonstration, and experience will rapidly increase.

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[a] EDITOR'S NOTE.—The values mentioned in this chapter are presumably expressed in Chinese dollars. See footnote on p. 124.

The First Provincial Forestry Station of Kiangsu, situated close by the famous Ming Tombs at Nanking, was established in 1916 by the Provincial Department of Industry, with a budget of $6,000. This was increased to $20,000 during its first year and to $27,000 during its second year. The station has under its control and supervision two substations, where large planting operations are being carried on. The central station has about 1,100 mow (183 acres) of land, a good part of which is in nurseries. In 1918 the central station raised in its nurseries 1,800,000 seedlings, and had 1,200,000 transplants, or a total of 3,000,000. The Mofusan substation contains almost 20,000 mow (mow=⅙ acre) of land, and by the end of this season will be entirely reforested. The second station is at Paosan, where considerable planting has been done on several of the more important dykes. Young trees are produced at these stations not only for the Government's own use, but for sale and distribution.

The Educational Forest Enterprise was established in 1916 and has secured a very extensive mountainous tract of land (over 100,000 mow) just northwest of and across the river from Nanking, west of Puchen. Funds to carry on the work are provided from a small proportion of the budgets of certain provincial schools. Extensive nurseries are maintained, which not only furnish the planting stock of the enterprise but from which the people in charge sold in the spring of 1919, as noted above, $2,500 worth of stock. The forest planting that they are carrying on is the largest in Kiangsu Province and ranks high among the very largest in any part of China. In the spring of 1919 they have already planted several millions of trees. The work is under the supervision of Mr. Y. Chen.

Large nurseries have also been started this year by the Peking-Hankow Railway at Huangshangpi (station), Honan, under the direction of Mr. Ngan Han, formerly codirector of the Forest Service organized in 1916 in Peking, but later disbanded. This is more or less of a private enterprise on the part of the Government railway to make provision for its own supply of ties and other timber needed for construction and repair work. It is a wise and commendable undertaking on the part of the railway, and it is understood that some agreements in this connection have been negotiated between the Ministries of Communications and of Agriculture and Commerce, looking to the extension of such work.

The Lung-Hai Railway has also started a large nursery at Chengchow, Honan, looking to a future permanent supply of timber to meet its needs. The work is under the direction of Mr. J. Hers.

The Cheng-Tai Railway, which connects the capital of Shansi Province with the Peking-Hankow Line, started a nursery and reforestation work several years ago in order to furnish certain of its equipment supplies.

Gov. Yen Hsi-shan, the able and progressive Tuchun of Shansi, distributed in the spring of 1919 350 pounds of *Robinia pseudo-acacia* (black locust) seed for nurseries throughout the Province as the beginning of an extended forestry policy that he is inaugurating.

The Kiangsi provincial government carries an annual budget of $20,000 for forestry work and has three forest stations—one at Kuling, specializing in tea and Tung-yu; one at Tungtingsz, specializing in Tung-yu; and one at Fukuohsien, devoted to forest plantings.

In Chekiang a number of leading citizens have organized the Yuin Yao Co., with a capital of $80,000, fully subscribed and being paid in at the rate of 10 per cent a year, the annual payments of $8,000 being used for forestry work, mostly planting. This large company was an outgrowth of one of Mr. D. Y. Lin's lecture trips to Hangchow at the invitation of Gov. Tseh. Mr. Y. Chen, who is managing the Educational Forestry Enterprise, is also directing the work of this company.

The colonization work that Mr. Joseph Bailie (now on colonization work in Manchuria) started on Purple Mountain at the time of the last famine, in 1912–13, has developed very largely into afforestation. This past spring (1919), about 700,000 trees, mostly pines, were planted out by the colonization association. A large part of this famous old mountain is now planted with trees and is beginning to show "green" instead of its centuries-old "brown." With its favorable location along the Shanghai-Nanking Railway, where it is seen by thousands of passengers daily, and as the trees grow larger, Purple Mountain will become increasingly important as a practical demonstration of what can be done with many thousands of mountains similar to it.

In addition to the teaching work of the College of Agriculture and Forestry of the University of Nanking, extensive nurseries and a seed department are being developed. Both nursery stock and seeds are sold as cheaply as possible. Material was furnished in the spring of 1919, as noted above, for 34 nurseries under Chinese direction and 6 under foreign direction, the latter mostly in connection with mission schools. In addition to seeds, about 300,000 seedlings were sold. This spring's nursery planting is three times that of last year.

The afforestation work begun by the Germans at Tsingtau, which is being carried forward by the Japanese, is probably the largest piece of forest planting as yet accomplished in China.

In each of the Provinces of Chekiang and Kiangsi there is one forestry school of middle-school grade. In Kiangsu some forestry is taught in the First Provincial Agricultural School (middle-school grade). The University of Nanking, through its College of Agriculture and Forestry, offers a college course of five years in forestry. This latter is the only college-grade forestry school in China, and from its beginning it has received support from a number of provincial governments, as well as the central Government and the Forestry Fund Committee of Shanghai.

The above evidences of progress along practical forestry lines are only those that have come to the notice of the writer. There are doubtless others, but those mentioned are sufficient to show the increasing interest in this work. The actual results, in comparison with all the work that is waiting to be done, are relatively small, but in view of what was being done only five years ago, they show a tremendous progress both in interest and in actual work accomplished.

CHINA'S COMMERCIAL AND INDUSTRIAL PROGRESS AND PROSPECTS.

By Commercial Attaché Julean Arnold.

INTRODUCTION.

China is now awakened and at the dawn of what may prove to be the greatest industrial and commercial development the world has yet witnessed. The Chinese are industrious people, possessed of remarkable endurance, splendid mentality, good ideals, and a fine spirit of reasonableness, but lacking as yet effective organization. They represent a quarter of the world's population on a continent that contains more than half of the human race, and they hold or have access to an unlimited wealth of natural resources. When given the implements of modern civilization and the requisite organization, China will, with the aid of the west, achieve wonderful things in commercial and industrial expansion.

Thirty years ago it was practically impossible to lay a mile of railway or open a mine anywhere in China without arousing opposition on the part of the population by reason of the native beliefs. The earth was considered by the masses as the abode of horrible monsters, and it was thought that rails laid over it or mining shafts plunged into it would arouse these monsters and bring disaster to the dwellers above, or at least to the spirits of the departed whose graves might be molested in these operations. To-day China has 6,500 miles of railway, with an additional 2,400 miles under construction, and the populace throughout the country, from the officials and gentry down, appreciate their value and are eager for more, so long as those who build them do not impair the sovereignty of the people in so doing. The European war has temporarily arrested railway development in China, but concessions for the building of 14,000 miles had been granted prior to its outbreak. China will require tens of thousands of miles, and the millions of China are ready for them.

HUNAN AS AN EXAMPLE OF MODERN DEVELOPMENT.

As an example of contemporary tendencies, one may mention Hunan, in the heart of China, which was the last Province to open its doors to foreign enterprise. Even the foreign missionary was unable to get into this Province until within the last 20 years. Although it is rich in mineral resources and the most accessible physically of China's rich mineral Provinces, it is only within recent years that mining operations there have taken on a modern character. The great demand for antimony that came with the war has helped to open the minds and purses of the Hunan people to a favorable attitude toward modern mining enterprise. Hunan now supplies 80 per cent of the world's consumption of antimony. Besides antimony, coal, lead, tin, zinc, and very recently wolframite are appearing in the list of products exported from this Province. As a result, smelters and modern manufacturing plants are springing up. Hunan is destined to a big future in the new industrial China. Modern buildings of brick, stone, and cement are already rising on the streets of Changsha. The city wall is being torn down to make room for a boulevard, and miles of good roads are being built. A railway connecting Changsha with Hankow has recently been completed, and soon the city is also to be joined with Canton on the south. The Pinghsiang Collieries, the property of the greatest industrial organization in China, the Han-Yeh-Ping Iron & Steel Co., are located in Hunan and are turning out daily 3,000 tons of semianthracite coal and 1,500 tons of coke. Thousands are employed in these collieries, which now have the appearance of a western coal-mining and industrial center. Yet Hunan was a few years ago the seat of conservatism, the hermit Province, and its people were intensely antiforeign.

The Pinghsiang Collieries, as stated, are part of the property of the Han-Yeh-Ping Iron & Steel Co., which had its inception in the brain of one of China's enlightened viceroys, Chang Chih Tung, who 25 years ago ordered the steel furnaces erected at Wuchang, his official residence, that he might behold from his windows the smoke rising from its stacks. Because of the united opposition of the people of Wuchang, who feared that the modern industrial plant would incur the enmity of the dragon which had its abode in the hill at the back of their city, the viceroy, popular and powerful as he was, was obliged to order it placed at Hanyang. Since that date, in the construction of a modern road, a tunnel has been cut through this sacred hill. The Han-Yeh-Ping Co. now employs 6,000 men at its works at Hanyang, manufacturing steel rails, steel plates, and other iron and steel products. It is erecting two new blast furnaces at its iron mine at Tayeh.

MINING AND RELATED INDUSTRIES.

Development of China's mineral wealth will follow naturally with the improvement of transportation. Already there is to be noted a great deal of activity in this direction. The Chinese people have come to realize that it is to their advantage and profit to develop their wealth of mineral resources.

China is very fortunate in possessing a great wealth of the two great essentials to modern industrial advance—coal and iron. Various estimates have been made of China's wealth in coal, and, according to Prof. Fernald, of the University of Pennsylvania, China's coal resources can be estimated at about 1,200,000,000,000 short tons, as compared to the United States' 4,200,000,000,000 short tons. Mr. V. K. Ting, director of the Geological Survey of China, estimates that China's coal deposits are sufficient to supply the world's needs at the present rate of consumption of 1,000,000,000 tons a year for 1,000 years. The present output of the Chinese mines by modern machinery is estimated at 15,000,000 tons a year, and the total output at nearly 30,000,000 tons. The United States in 1880 produced 60,000,000 tons and in 1917 nearly 700,000,000 tons.

Usually China imports more coal than it exports, but during the year 1918 the imports amounted to 1,075,000 tons, while the exports totaled 1,708,000 tons. The impetus given to this industry by the unprecedented increases in the price of Japanese coal, combined with the high maritime freight rates, was probably responsible for the increased Chinese export business in this product. It is stated that the cost of coal at the mine in China is at present $2 to $2.50 Mex. per ton.

Dr. H. Foster Bain, assistant director of the United States Bureau of Mines, estimates that China has 400,000,000 tons of iron ore available and suitable for modern furnace reaction, and an additional 300,000,000 tons that might be treated by native methods. Probably a conservative estimate of the production of pig iron in modern plants in China for the year 1918 is 500,000 tons. The United States in 1880 produced 3,600,000 tons and in 1916 30,000,000 tons. In 1918 China exported 420,000 short tons of iron ore and nearly 200,000 short tons of pig iron.

With its wealth of cheap labor and its marvelous potentialities in modern industrial developments generally, China has, with its huge stores of coal and iron, the essentials for the development of a great industrial nation. Blast furnaces are springing up in China, and the growth of the steel industry may be expected to go forward with tremendous strides during the next few decades. The Chinese Government is making efforts to nationalize its resources in iron, and regulations have been promulgated with this object in view.

Considerable British and Japanese capital has come to China in the development of the coal mines. With cheap freight rates it would seem that the Pacific Coast of the United States might find in China a profitable source of supply for coal. American capital has been hesitant in appreciating the advantages offered in the coal-mining industry in China, apparently for the reason that America does not at present import coal from China. Even though the United States were never to import Chinese coal, American capital invested in Chinese coal mines would assist the sale of American machinery, not only in the coal-mining industry but in many allied lines.

China controls a large proportion of the world's resources in antimony, and the exports of this product during the war years have been very heavy, amounting in 1917 to 16,000 short tons of antimony regulus and 22,000 short tons of antimony crude. Of the antimony the United States took in 1918 about 42 per cent. As already indicated, the center of the antimony industry in China is in Hunan Province, where considerable Chinese capital has been invested and millions of dollars spent in smelters and modern machinery.

Chinese exports of tin in slabs amount ordinarily to about $12,000,000 a year. In 1918 the exports totaled more than 13,000 short tons. Most of this tin comes from Yunnan Province.

During the past few years much Japanese capital has found its way into China in mining enterprises, more particularly in Manchuria and Eastern Mongolia. The country offers splendid opportunities for mineral developments, especially among the base metals, and the market possibilities for machinery and equipment are such as to warrant American manufacturers of mining machinery in helping to familiarize the Chinese people with their products. Opportunities are offered for the placing of American mining machinery in Chinese technical and engineering schools. As the American people take the lead in mining enterprises generally, they should not overlook the big opportunities that China will present in this direction for both American capital and American machinery.

MANUFACTURING.

In manufacturing industries generally, China has a bright future. The people are now at the inception of modern industrialism. They possess an enormous wealth of cheap labor, raw materials, and markets for their products. Those who have had contact with Chinese mechanics testify to the splendid ability which these people exhibit in this direction, in fact they are unanimous in stating that the Chinese people, more especially the Cantonese, possess the mechanical instinct.

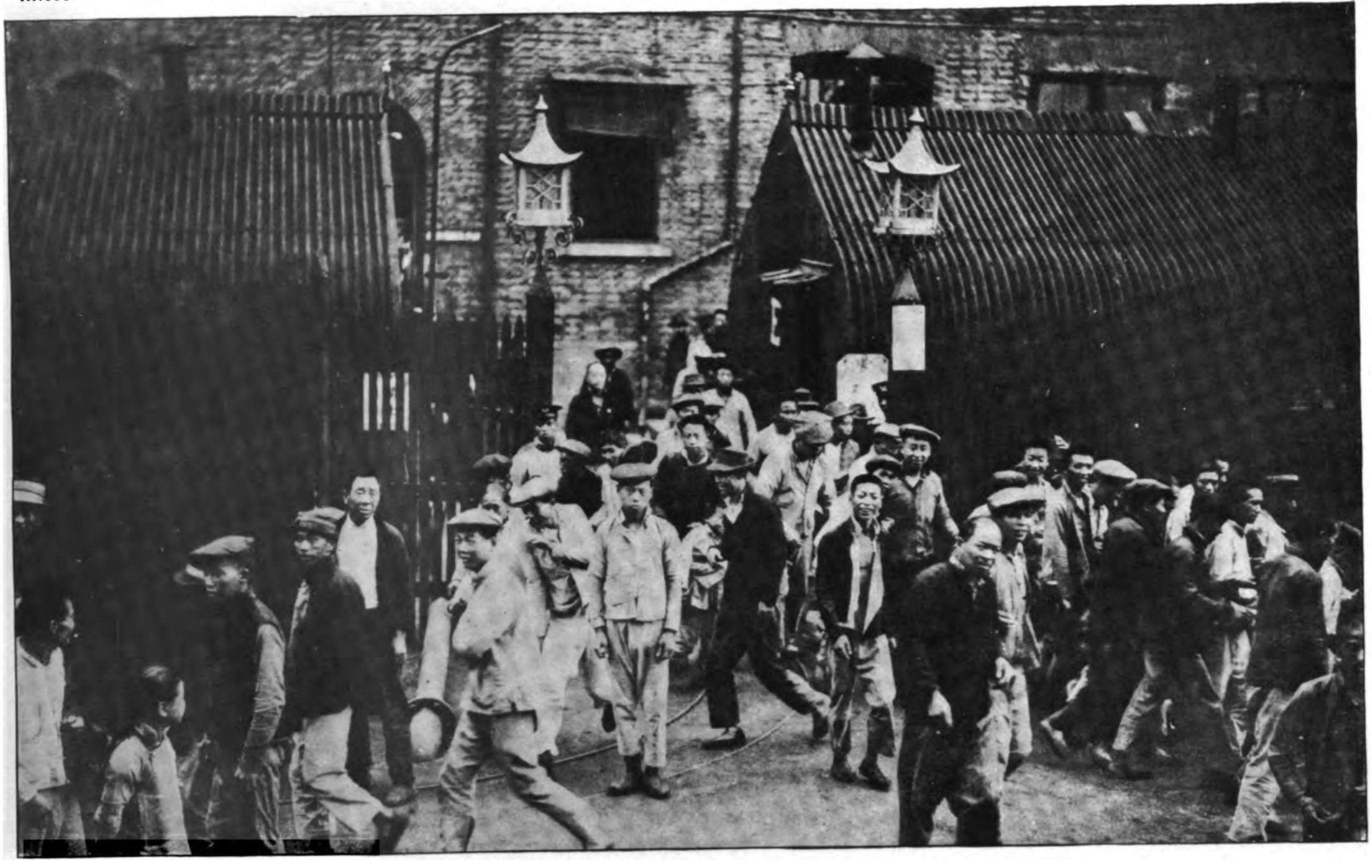
COTTON INDUSTRY.

The development in recent years in the cotton industry in China will serve to indicate the possibilities generally in manufacturing in that country. It has been demonstrated that China can grow American cotton of good quality and long staple. It has also been demonstrated that the native cotton, which is of short fiber (and which, by the way, will not hybridize with foreign cottons), can also by the process of selection be greatly improved. It is estimated that China in 1918 produced 2,500,000 bales (500 pounds each) of raw cotton, as compared to America's annual production of 12,000,000 bales.

Chinese interested in the cotton industry are taking steps to improve the quality and quantity of the raw material, and arrangements have been made for the retention by these interests of an American cotton expert to work in conjunction with the Department of Agriculture of the University of Nanking. China has now 1,500,000 spindles and 7,000 machine looms, in addition to which there are tens of thousands of hand looms in use throughout the country. By way of comparison, it may be stated that Japan has 3,000,000 spindles and 35,000 looms, the United States 34,000,000 spindles, and England 58,000,000 spindles and 900,000 looms.

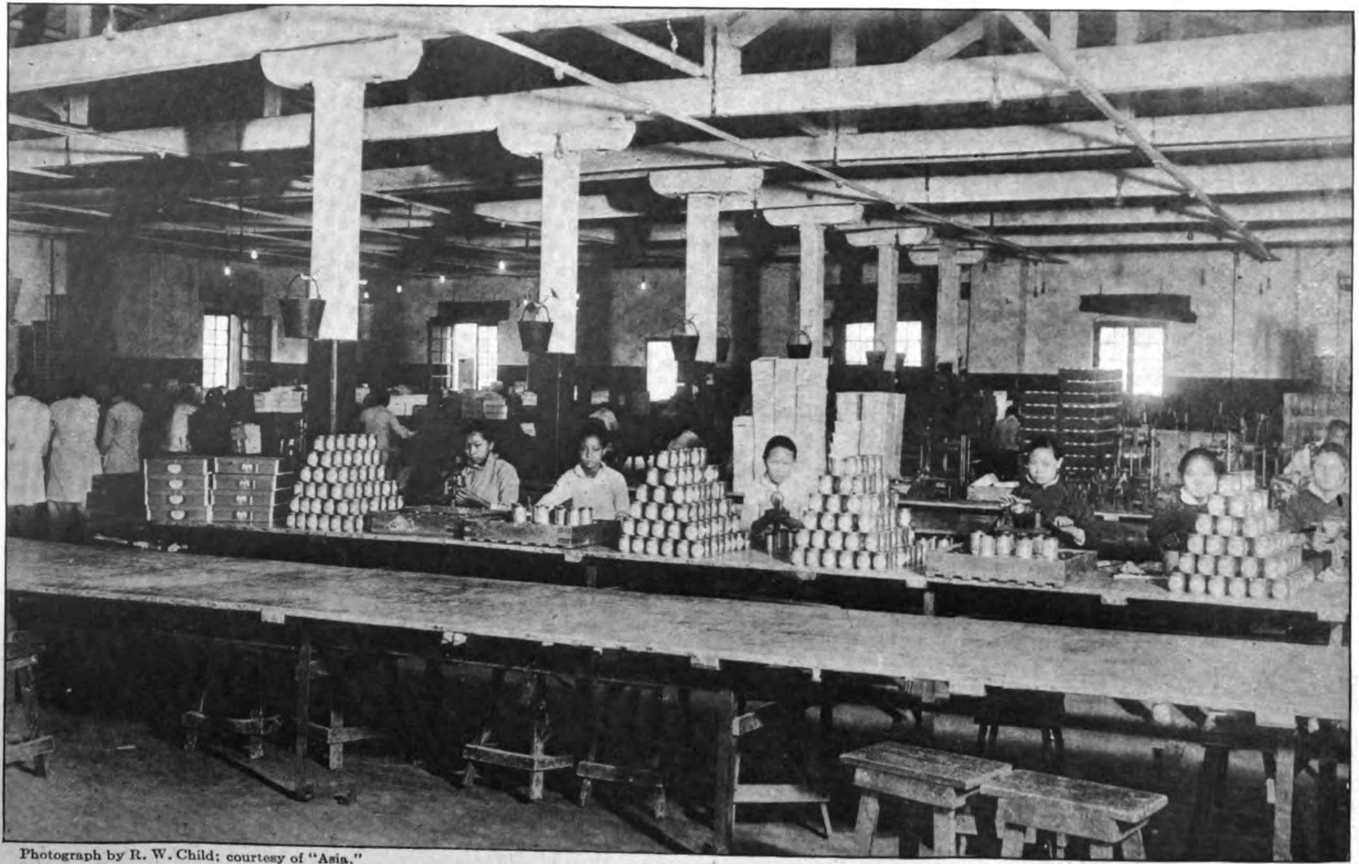
To install a plant of 25,000 spindles requires about $750,000 capital. The cotton mills in China are paying annual dividends as high as 30 per cent. One mill has paid an average of 26.5 per cent for a period of 8 years. Another has paid an average of 20 per cent for a period of 12 years. Ten American cotton mills have been erected, or are in course of erection, in China, and the field offers unlimited possibilities. China imports annually $65,000,000 worth of cotton yarn, and the following items in cotton piece goods: Shirtings, gray, $9,000,000; sheetings, gray, $13,000,000; shirtings, white, $17,000,000; drills, $5,000,000; jeans, $11,000,000; T cloths, $3,500,000; plain cotton prints, $4,500,000; dyed cottons, $25,000,000; nankeens, $7,000,000; miscellaneous, about $15,000,000. Thus, the totals for cotton yarn and piece goods are something like $175,000,000 annually.

It must be borne in mind that the purchasing power of the people is low, and that with development of industry in the country it will increase, so that the introduction of machinery in the cotton industry need not be interpreted as materially lessening the market opportunities for foreign manufactured cottons, as, with a population of 400,000,000, a slight increase in the per capita consumption



Photograph by R. W. Child; courtesy of "Asia."

FIG. 14.—THE NOON HOUR: TYPES OF CHINESE INDUSTRIAL LABORERS.



Photograph by R. W. Child; courtesy of "Asia."

FIG. 15.—WOMEN WORKERS IN FACTORY AT SHANGHAI.

of cotton cloth would very easily equal the entire present importations. The stocks of cotton goods and cotton yarn held in China at present are unprecedentedly low. It is estimated that spinnings in China during 1918 totaled $60,000,000 in value. Shanghai is the center at present of the cotton industry, with Hankow in second place.

FLOUR-MILLING INDUSTRY.

The war lent an impetus to the growth of the flour-milling industry in China. China produces probably about 200,000,000 bushels of wheat a year, which is about one-quarter as much as the United States produces. Transportation is an important factor in the development of the Chinese flour-milling industry, as can readily be understood in view of the fact that the northwestern Provinces in China are producing wheat by the tens of millions of bushels, which, because of inadequate transportation facilities, can not find its way into the markets of eastern China, where it can command three and four times as much. It costs from 15 to 20 cents a ton-mile for transportation in Shensi by native methods, as compared to seven-tenths of a cent per ton-mile for transportation for wheat on American railways. The more wheat the people of Shensi raise the worse off they are, for the reason that it becomes a drug on their own market. Shensi possesses some of the most fertile soil in all of China, which has been under cultivation for upward of 3,000 years, and is still producing 30 or 40 bushels to the acre by intensive methods of cultivation. Where there are modern transportation facilities in the wheat-producing sections of China, the flour-milling industry is developing rapidly, in spite of the fact that the Chinese miller experiences difficulty in buying his wheat, since he is forced to purchase from numerous middlemen, who buy from the small growers.

In Shanghai and vicinity there are 20 modern flour mills, with an aggregate daily capacity of 10,500 barrels. In Manchuria there is a similar number. In all of China there are about 70 mills, with a daily capacity of about 35,000 barrels. These mills use, it is estimated, about 50,000,000 bushels of wheat annually. There are tens of thousands of household stone cereal grinders throughout China and hundreds of old-style millstones propelled by water wheels or animal power. In 1918 China exported flour to the value of more than $10,000,000, which is about the equivalent of its former normal imports of the American product.

OTHER MANUFACTURING INDUSTRIES.

Among the other manufacturing industries that are assuming a position of importance in the modern industrial growth of China are soap and candle factories, match factories, ice and aerated water factories, factories for the preparation of egg products, knitting mills, canneries, cement and brick works, chemical works, dockyards, shipbuilding and engineering works, electric light works, furniture factories, glass and porcelain works, cold-storage plants, tanneries, oil mills, paper mills, printing and lithographic works, railway shops, rice hulling and cleaning mills, sawmills, modern silk filatures, silk mills, sugar refineries, tobacco factories, waterworks, woolen factories, and arsenals.

INSTALLATION OF ELECTRIC PLANTS.

During the past 10 or 15 years there have been installed in China nearly 100 electric light plants, and the developments in this direction are almost without limit. The Chinese people take readily to the use of electricity for lighting purposes, and are also finding it economical for power for industrial plants. The General Electric Co. has erected in Shanghai a plant for the manufacture of electric bulbs, and reports that Chinese workers have become very proficient in a very short space of time. The Shanghai municipal council, electricity department, deserves credit for giving to the Shanghai community cheap electric power, which has contributed very materially to making Shanghai a great industrial center.

PROBABLE DEVELOPMENT OF TRAMWAYS.

While very few Chinese cities are at present equipped with tramways, principally because of the narrow streets and generally congested conditions, there will take place during the next two decades a development of tramways, not only in the cities of China, which will be greatly improved, but also in outlying country sections.

SHIPBUILDING INDUSTRY.

Although China does not possess a mercantile marine, the shipbuilding industry has become one of considerable importance. A Chinese plant in Shanghai is completing 50,000 tons of cargo boats for the United States Shipping Board. There are dockyards, shipbuilding and engineering works at Amoy, Canton, Dairen, Foochow, Hankow, Harbin, Hongkong, Mukden, Shanghai, and Tientsin. They are small as yet compared to plants abroad, but give promise of developing into an industry that will take a permanent and prominent place in the modern industrial China.

RAILWAY SHOPS.

The building of railways in China makes necessary the construction of railway shops, and one finds all the various railways in China with repair and construction shops, some of which have assumed positions of considerable importance, such, for instance, as that of the South Manchuria Railway at Dairen (Shakako) and the Peking-Mukden at Tangshan.

MISCELLANEOUS ECONOMIC ACTIVITIES.

North China produces large quantities of wool, the annual exports of which are valued at about $12,000,000, 64 per cent being exported during 1918 to the United States. The manufacture of woolen goods is at the inception of its development in China, and up to the present very little progress has been made.

In hides and skins China's exports amount to about $25,000,000, nearly 75 per cent of which goes to the United States. A number of small tanneries have been established, and arrangements are now under way for the opening of a plant at Shanghai for the tanning of hides, which will be on a scale sufficiently large to insure its success. The trouble in the past in the development of the tannery industry in China has been that not enough capital has been put into the business and expert tanners have not been engaged.

China's importation of matches, which is a large item in Japan's trade in the country, is decreasing as a result of the development of the industry in China.

The egg industry has grown to considerable proportions in China during the past 20 years, and egg-albumen factories for the preparation of egg products have sprung up in considerable numbers. China's exports of these products amount ordinarily to nearly $15,000,000 a year, about half of which goes to the United States in the form of albumen, yolk, and frozen and fresh eggs.

Canneries for preserving fruits and meats are found in Amoy, Chefoo, Chungking, Foochow, Shanghai, and Swatow, and are canning nearly everything in the way of food products.

As China has not developed a dairying industry, it will probably remain for some time a large importer of canned milks, imports of which amounted in 1917 to nearly $1,000,000 and in 1918 to about $820,000.

With the termination of the war and a resumption of normal conditions, the cold-storage factories will resume operations in preparation of game, poultry, and meats for exportation from China. With improved transportation facilities the great plains in Mongolia and North and West China will witness great developments in the cattle and sheep industries, which will probably result in the establishment of packing houses.

China manufactures vegetable oils, these having in recent years assumed a position of considerable prominence in China's trade abroad. The most prominent of these is bean oil, the exportation of which during 1918 amounted to nearly $30,000,000, about 75 per cent of which went to the United States. The center of the bean-oil industry is in Dairen, where a considerable number of mills have been installed for the making of oil. Shanghai and Hankow are also important centers for this industry.

The bean trade of China has come to the front in a phenomenal way, so that beans and bean products now figure second in value in China's list of exports, amounting in 1918 to nearly $87,000,000.

Next after bean oil, peanut oil is of most importance in the vegetable-oil exports, amounting in 1918 to about $8,500,000, or 40,000 tons. The peanut and peanut-oil industry is also a comparatively new development in China's foreign trade, but shows signs of considerable increase in the future.

Wood-oil exports amounted to more than $7,000,000 in 1918, 75 per cent going to the United States for use in varnish and paints.

Tobacco is assuming a position of importance in the industries of China, and factories of considerable size are to be found in Hankow, Harbin, Hongkong, Mukden, Newchwang, Shanghai, and Tientsin. It has been stated that the aggregate output of the cigarette factories in China is upward of 10,000,000,000 cigarettes a year.

Soap and candle factories suggest to the Chinese a profitable employment for their capital, and Shanghai is the center for this industry, though there are a number of small concerns in various other cities in China. China's importation of soap and the materials for the manufacture thereof amounted in 1918 to a valuation of more than $1,000,000. The imports of candles for 1918 totaled $1,200,000 and of candle-making materials, $290,000.

A good quality of cement is now produced in China, and its manufacture has become an important industry. Canton, Hankow, Hongkong, and Tangshan have important cement works. The aggregate output of each is very considerable; the average output of the Tangshan Cement Works is 500,000 casks per year. The Hankow plant has a capacity of 1,000 casks a day and the Canton plant 500 casks per day. The Hongkong Cement Works turn out 50,000 to 60,000 casks a month.

In printing and lithographing great progress has been made since 1900, as the native press has come to assume a very important place in China, and the demand for modern textbooks and printed material of all descriptions is rapidly increasing. The Commercial Press in Shanghai is one of the largest industrial concerns in China—a Chinese corporation that has been signally successful. It employs more than 2,000 men and women and has 57 branches and numerous agencies all over the country. It prints and binds books and all sorts of printed matter, manufactures type, laboratory apparatus, toys, stationery, and makes maps, calendars, and numerous other articles. Because of the success of this concern, a number of other Chinese plants of a similar description have sprung up and are sharing with the Commercial Press in the ever-increasing business that modern developments in China make possible.

SILK INDUSTRY.

The silk industry in China is in the process of evolution. The old-style filatures are being replaced by modern plants, and the antiquated hand looms are giving way to modern machine looms. Silk represents by far the most important industry in the whole of China. The exports of this product for the year 1918 amounted to $89,000,000 for raw silk, $7,330,000 for pongees, $15,220,000 for silk piece goods, $11,000,000 for silk waste, and an aggregate for silk in all forms of nearly $128,000,000. The United States took 20 per cent of the steam-filature raw silk and 56 per cent of the rereeled raw silk. It imported during the year 1918, 34,000,000 pounds of raw silk, valued at more than $200,000,000. The Silk Association of America sent its representative to China to try to encourage the Chinese people to prepare their raw silk in a way better suited to the needs of American high-speed looms. He has been very successful in his efforts to induce the Chinese to change their methods, so that it is expected that within a few years Chinese exports of raw silk to the United States will increase to several times the present quantity.

At Canton and Shanghai national committees for the improvement of sericulture have been organized and are working in cooperation with the Chinese Government and the Chinese silk interests to improve the seeds. The Department of Agriculture of the University of Nanking is assisting materially in this connection, not only in the improvement of sericulture, but also in the development of a higher class of mulberry. American, British, and French silk interests are contributing $5,000 a year each toward the work of the National Committee, which is also supported by a contribution of

4,000 taels a month from the Chinese Government. When this committee started its work it found that nearly 90 per cent of the seeds or eggs used by the silk growers in China were diseased, and they are gradually reducing the percentage, so it is hoped to eliminate within 10 or 20 years most of the diseased stock.

SUGAR INDUSTRY.

Although considerable sugar cane is grown in South China, the introduction of modern sugar-mill machinery has made but little headway. The imports of sugar into China in 1918 totaled more than $70,000,000 in value, the greater part coming from Hongkong (where there are two large refineries), Java, and Formosa. In Manchuria sugar beets are being raised, and a steam-driven sugar-beet factory has been installed, with a capital of $1,000,000. The industry is expected to develop into one of considerable importance.

SUMMARY OF PROSPECTS.

There are other industries that are now in process of development in China, including installation of public utilities. The Chinese people have awakened to the advantages that modern machinery and scientific research have to offer and are ready, as fast as conditions will permit, to discard their household industries and primitive methods and develop into a modern industrial society.

No matter in what direction one may turn in China, he will find opportunities for industrial development; and modern education is opening the eyes of the people to the possibilites in modern industry. With the enormous natural resources that the country possesses, with its great wealth in industries and cheap labor, and with an enormous home market as well as densely populated contiguous territories, China offers probably better opportunities for industrial development and for the investment of capital in manufacturing than does any other country on the face of the earth. The demands for machinery of all kinds during the next few decades will be enormous. One of the advantages is that the Chinese have practically no old machinery to scrap.

Chinese business men, who in the past have been unaccustomed to corporate enterprise, are learning to understand the advantages of corporate undertakings and organizations of a kindred sort. There are at Shanghai and Canton large corporate Chinese business concerns which are a conspicuous success, demonstrating the ability of the Chinese to participate in the development of big business.

Shanghai is the principal commercial and industrial center of China and is rapidly becoming very modern. In the next 10 or 20 years tens of millions of dollars will be spent in Shanghai in the erection of modern buildings, including business houses, industrial plants, and modern residences—probably for the most part with Chinese capital. The Shanghai Bankers' Association, which is composed of 15 native banks of the modern type, meets daily at its own clubhouse, which augurs well for the future of modern banking among the Chinese communities.

The agricultural developments in China will be of supreme importance to the growth of modern industrialism, for the reason that the prosperity of the country will depend in large measure upon the advances that agriculture makes in its relation to other developments. Probably more than 80 per cent of the people in China are still agricultural. Agricultural schools are growing up in various parts of the country and bid fair to keep pace with the demands that the new conditions will make upon the agricultural communities. In this connection some of our American educational institutions are doing a prominent and effective work. In fact, the American missionaries are a distinct asset in the modernization of China. They comprise more than 50 per cent of the entire American population in China, and are spending probably as much as $10,000,000 a year in their schools, hospitals, and other constructive agencies.

The Chinese are receptive now to western ideas and modern industrialism, and the country is now, the writer believes, on the threshold of developments greater by far than any yet experienced.

The new China will be in the market for practically everything the West will have to offer, but more especially for machinery, metal goods, building materials, railway, mining, and shipbuilding equipment, heating and sanitary appliances, motors and motor cars, knitting machines and textile plants, needles, nails, hardware, electrical machinery and equipment, industrial plants of nearly every description, and, in fact, everything needed to transform the country into a modern industrial and commercial society. Instead of 100,000 persons in factories and 4,000,000 children in schools, the estimates for 1918, the China of a few decades hence will have 40,000,000 factory hands and 80,000,000 school children, figures proportionate to the present statistics of the United States.

Japan has witnessed a remarkable development as a result of the war, and has hundreds of millions now for investment in China. The Japanese Government, Japanese bankers, merchants, and others are putting money into enterprises of all sorts in China, more especially in developments in Manchuria.

There need be no international jealousies in the competition for the wonderful trade China will have to offer, as there will be room for all, so long as each country is willing to play the game fairly and with consideration for the rights of all, including those of China. China needs help in reforming its currency, in building its railways, in developing its mineral wealth, in rebuilding its cities, in effecting an administrative system that will accord its people opportunities for industrial and commercial expansion under a system guaranteeing to the individual the fruits of his legitimate labors, and in the giving to the masses the common-school education essential to the development of an enlightened public opinion. In a word, China needs foreign assistance in the development of its latent resources in men and materials. From this development will spring marvelous opportunities in trade, probably greater in extent than those offered elsewhere. A strong, independent, self-reliant China possessed of progressive ideals will prove a blessing to humanity. It behooves the West. in its relations with China, to work on broad, sympathetic lines, in a spirit of cooperation rather than competition, with a vision for the future, as the day will come when the Pacific will be the world's great arena of trade and commerce, and that trade will only be worth while and a blessing if built upon a foundation of friendship and good will.

COTTON GOODS IN CHINA.

By Trade Commissioner Ralph M. Odell.[1]

GENERAL SURVEY OF TRADE.

Cotton manufactures constitute by far the largest single item in the import trade of China. During 1918 cotton yarn and thread imports amounted to 151,522,133 pounds, valued at $66,298,301, and imports of piece goods and other cotton manufactures were valued at $114,298,544, making a total value of $187,838,972. The enormous population of China depends largely on cotton goods as a material for clothing. The better class of Chinese use a certain amount of silk and wool, but the great mass of the people are too poor to afford them. Moreover, the climate in many sections of the country is sufficiently mild throughout the greater part of the year to permit the general use of cotton clothing.

The following table shows the value, in haikwan taels and United States currency, of the imports into China of all articles and of cotton manufactures and the percentage that the latter bears to the total import trade during the years 1880–1918:

Years.	Total imports.		Imports of cotton manufactures.			Value of haikwan tael.
	Chinese currency.	United States currency.	Chinese currency.	United States currency.	Per cent of total.	
	Haikwan taels.		*Haikwan taels.*			
1880	79,293,452	$111,803,777	23,382,957	$32,969,969	30.54	$1.41
1881	91,910,877	124,079,684	26,045,836	35,161,879	28.34	1.35
1882	77,715,228	108,024,167	22,706,784	31,562,430	29.21	1.39
1883	73,567,702	100,787,752	22,046,785	30,204,095	30.00	1.37
1884	72,760,758	98,954,631	22,141,222	30,112,062	30.43	1.36
1885	88,200,018	113,778,023	31,493,823	40,627,032	35.70	1.29
1886	87,479,323	106,724,774	29,114,622	35,519,839	33.28	1.22
1887	102,263,669	120,671,123	37,047,931	43,716,558	36.23	1.18
1888	124,782,893	142,252,498	44,437,525	50,658,779	35.61	1.14
1889	110,884,355	127,517,008	36,135,596	41,555,935	32.60	1.15
1890	127,093,481	161,408,721	45,020,302	57,175,784	35.41	1.27
1891	134,003,863	160,804,636	53,290,200	63,948,240	39.76	1.20
1892	135,101,198	143,207,270	52,707,432	55,869,878	39.71	1.06
1893	151,362,819	145,308,306	45,137,970	43,332,451	29.82	.96
1894	162,302,911	126,440,271	52,105,448	40,642,249	32.14	.78
1895	171,696,715	137,357,372	53,074,164	42,459,331	30.91	.80
1896	202,589,994	164,097,895	79,243,431	64,187,179	39.12	.81
1897	202,828,625	148,064,896	78,663,280	57,424,194	38.78	.73
1898	209,579,334	146,705,534	77,618,824	54,333,177	37.04	.70
1899	264,748,456	193,266,373	103,463,048	75,528,025	39.07	.73
1900	211,070,422	158,302,816	75,606,360	56,704,770	35.82	.75
1901	268,302,918	193,178,101	99,651,999	71,749,439	37.14	.72
1902	315,363,905	198,679,260	127,524,120	80,340,196	40.43	.63
1903	326,739,133	209,113,045	128,625,604	82,300,387	39.36	.64
1904	344,060,608	227,080,001	124,048,311	81,871,885	36.05	.66
1905	447,100,791	326,383,577	181,452,953	132,460,656	40.58	.73
1906	410,270,082	328,216,066	152,727,845	122,182,276	38.41	.80
1907	416,401,369	328,957,082	118,915,923	93,943,578	28.56	.65
1908	394,505,478	256,428,561	110,898,379	72,083,946	28.11	.76
1909	418,158,067	263,439,582	137,288,198	86,491,565	32.83	.63
1910	462,964,894	305,556,830	130,679,235	86,248,295	28.22	.66
1911	471,503,943	306,477,563	143,802,025	93,471,316	30.50	.65
1912	473,097,031	350,091,803	144,088,874	106,625,767	30.45	.74
1913	570,162,557	416,218,667	182,419,023	133,165,887	31.99	.73
1914	569,241,382	381,391,726	183,328,473	119,433,560	32.21	.67
1915	454,475,719	278,139,140	149,300,513	91,371,914	32.85	.612
1916	516,406,995	422,937,329	136,679,386	111,940,417	26.47	.819
1917	549,518,774	593,480,276	158,950,267	171,666,288	28.93	1.08
1918	554,893,082	661,987,447	151,380,423	180,596,845	27.28	1.193

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[1] This chapter represents a condensation, by the Bureau of Foreign and Domestic Commerce, of the most significant portions of Mr. Odell's 242-page monograph, Special Agents Series No. 107. All figures have been brought up to date.

The following table shows the quantity and value of the net imports of raw cotton and of cotton yarn and thread and the value of the piece goods imported into China during the years 1902–1918:

Years.	Raw cotton.		Cotton yarn and thread.		Piece goods and other cotton manufactures.	Total.
	Quantity.	Value.	Quantity.[a]	Value.		
	Pounds.		*Pounds.*			
1902	33,495,867	$2,455,110	326,845,599	$34,540,935	$45,799,261	$82,795,306
1903	8,375,600	642,053	365,395,066	43,132,416	39,167,971	82,942,440
1904	8,683,867	750,948	304,723,866	39,378,901	42,492,984	82,622,833
1905	12,565,733	1,168,207	341,473,466	49,199,734	83,260,922	133,628,863
1906	6,047,600	582,484	339,028,133	52,112,613	70,069,663	122,764,760
1907	15,507,600	1,346,764	303,260,666	45,436,637	48,506,941	95,290,342
1908	13,202,963	1,133,863	243,191,466	30,012,663	42,071,283	73,217,809
1909	15,251,867	1,260,576	321,172,400	39,352,421	47,139,144	88,752,141
1910	27,455,333	2,946,237	304,726,933	41,468,139	44,780,156	89,194,532
1911	5,290,133	588,730	248,376,400	33,196,668	60,274,648	181,568,917
1912	37,225,600	4,573,090	306,794,933	46,371,188	60,154,629	111,098,857
1913	18,382,400	2,253,568	358,603,733	52,951,849	80,214,038	135,419,455
1914	16,865,066	1,924,319	339,479,600	44,950,853	74,482,707	121,357,879
1915	47,709,467	4,051,067	358,532,390	41,864,675	49,507,239	95,422,981
1916	54,352,533	6,608,339	329,508,900	52,396,213	59,544,204	118,548,756
1917	40,017,067	6,918,722	277,533,867	70,752,030	100,914,258	178,585,010
1918	25,348,000	7,242,127	151,522,133	66,298,301	114,298,544	187,838,972

[a] The weight of cotton thread on spools is not stated, but the number of spools imported (in gross of 144) was as follows: 1902, 90,711; 1903, 169,909; 1904, 256,243; 1905, 420,476; 1906, 411,868; 1907, 367,454; 1908, 371,924; 1909, 518,344; 1910, 530,583; 1911, 551,722; 1912, 557,541; 1913, 639,139; 1914, 544,980; 1915, 458,078; 1916, 605,527; 1917, 576,522; 1918, 488,821.

Shanghai is by far the most important entrepôt for cotton goods, followed by Tientsin, Dairen, Hankow, Swatow, Kiaochow, Canton, Wuchow, and Mengtsz. Shanghai is the principal port of distribution for the Yangtze Valley, central China as far as Tibet, and the north.

The principal sources of supply for the large volume of cotton manufactures consumed in China are England, Japan, India, the United States, and Russia, with smaller quantities from France, the Netherlands, Canada, Germany, and Italy. The true origin of the imports into China is difficult to determine because of the intervening ports of transshipment, particularly Hongkong, Antwerp, and Hamburg. In this connection the statistical secretary of the Chinese Maritime Customs states:

> The discovery of the true producing and consuming countries for the foreign trade of China is impeded by the intervention of various shipping ports, the application of the principles of extraterritoriality making it difficult, if not impossible, for the customs to go behind the documents showing the ports of actual shipment and actual consignment, and quite impossible to obtain trustworthy and uniform statistics of the countries of origin of China's imports and the real destination of its produce.

These remarks apply with particular force to Hongkong, which is for this reason necessarily treated in the statistics as a foreign country. Through this great port approximately 30 per cent of the total imports of merchandise and more than 15 per cent of the imports of cotton manufactures come into China. It is fairly safe to assume that nearly all the imports of cotton manufactures credited to Hongkong come from England and India, only small quantities coming from the Continent of Europe and the United States; but the proportionate share from each country is a mere matter of conjecture, inasmuch as no statistics are available showing the origin of the textile imports at that port.

The following table shows the value, in United States currency, of the gross imports of raw cotton, yarn, and thread, and the principal classes of piece goods in 1918 into China from Hongkong and the four principal countries that share in the trade, as shown by the statistics of the Chinese Maritime Customs:

Articles.	Hongkong.	India.	Great Britain.	Japan.	United States.	Other countries.	Total.
YARN AND THREAD.							
Yarn	$20,345,831	$6,738,442	$19,398	$39,114,470	$100,171	$1,742,873	$68,060,685
Thread:							
Balls	105,221	1,309	10,269	433,113	....	1,753	551,665
Spools	497,120	5,216	630,039	761,578	2,977	52,091	1,949,021
Total	20,947,672	6,744,967	659,706	40,309,161	103,148	1,796,717	70,561,371
PIECE GOODS.							
Grey[a] shirtings	1,173,765	120,308	236,952	5,120,862	129	2,843,288	9,495,304
Grey sheetings	69,008	....	58,180	12,072,457	522,999	725,843	13,448,487
White shirtings:							
Plain	2,707,564	8,457	9,079,212	4,508,991	73	194,256	16,498,553
Figured	185,169	820	569,390	12,401	3,929	2,256	773,965
Drills	116,056	10,800	34,768	5,197,770	246	24,868	5,384,508
Jeans	104,296	....	654,271	10,689,636	66,381	47,359	11,561,943
T cloths:							
32-inch	356,626	12	186,364	2,971,569	....	29,099	3,543,670
36-inch	89,547	2,481	....	232,800	....	10,846	335,674
Cambrics, lawns, and muslins	198,024	3,562	785,963	105,236	2,230	4,993	1,100,008
Lenos and balzarines	188,459	....	34,499	472	....	81	223.461
Plain cotton prints	266,412	4,910	996,371	3,134,954	106,408	179,215	4,688,270
Printed drills, furnitures, and twills	2,676	....	18,985	7,472	282	....	29,415
Printed sateens, reps, etc	26,582	2,096	363,016	75,300	163	4,531	471,688
Turkey-red cottons and dyed T cloths	102,553	....	760,515	1,333,842	....	13,735	2,210,645
Italians, venetians, and lastings:							
Plain, fast black	1,311,610	66,557	7,631,591	418,753	239	130,938	9,559,688
Figured	349,482	19,180	1,598,818	212,731	2,281	122,077	2,304,569
Plain, colored	1,031,179	13,285	3,920,160	3,961,073	385	84,579	9,010,661
Shirtings:							
Dyed, plain	142,223	2,548	20,073	337,191	....	36,196	538,230
Hongkong-dyed, plain	220,365	....	....	....	....	21,005	241,370
Spanish stripes, 64-inch	27,571	....	43,776	127,032	....	....	198,379
Cotton flannel:							
Plain, dyed, and printed	343,108	....	4,258	1,888,949	2,431	40,878	2,279,624
Yarn-dyed	445,780	....	17,335	201,253	1,622	2,641	668,631
Japanese cotton cloth	14,247	....	....	7,377,236	....	36,542	7,428,025
Japanese cotton crape	5,751	....	....	76,292	....	9,361	91,404
Velvets and velveteens	103,470	2,829	1,570,575	157,699	3,914	5,446	1,843,933
Blankets	152,113	1,954	959	421,273	330	18,880	595,509
Handkerchiefs	80,430	205	213,820	273,624	44,718	19,710	632,507
Towels	391,837	179	10,452	916,892	1,519	17,208	1,338,087
All other piece goods	1,646,140	6,975	5,760,427	5,141,352	60,717	400,899	13,016,510
Total	11,852,043	267,158	34,570,680	66,975,112	820,996	5,026,729	119,512,718
Total cotton manufactures	32,799,715	7,012,125	35,230,386	107,284,273	924,144	6,823,446	190,074,089
Raw cotton	752,505	722,806	....	5,128,863	486,286	205,749	7,296,209

[a] It is usual among cotton manufacturers to spell this word "grey" in referring to unbleached goods in their natural state and to spell it "gray" in referring to a color.

From the total value of the manufactures of cotton given in the foregoing table—$190,074,089—may be deducted $9,477,244 for re-exports, leaving $180,596,845 as the value of the net imports of cotton manufactures into the country.

In 1913, the last normal year before the beginning of the war, the value of the cotton manufactures imported by China from each of the principal sources of supply was as follows: Hongkong, $22,098,933, as against $32,799,715 in 1918; India, $13,802,090, as against $7,012,125 in 1918; Great Britain, $43,872,846, as against $35,230,386 in 1918; Japan, $40,166,911, as against $107,284,273 in 1918; United States, $6,520,870, as against $924,144 in 1918.

During 1918 Japan supplied more than 56 per cent of the cotton goods imported by China, Great Britain supplied more than 18 per cent (besides the British goods that came through Hongkong), while the cotton manufactures directly credited to the United States amounted to less than one-half of 1 per cent of the total.

Persons desiring detailed data concerning the quantity and value of all the various classes of cotton manufactures imported by China in the years 1904, 1913, and 1918 are referred to the tables beginning on page 3 of Volume 1 of this handbook.

The quantity and value of the cotton piece goods exported from the United States to China and Hongkong during the years ended June 30, 1904–1918, according to American statistics, were as follows:

Years and articles.	China.		Hongkong.		Total.	
	Yards.	Value.	Yards.	Value.	Yards.	Value.
1904.						
Uncolored	76,425,445	$4,050,700	341,054	$50,143	76,766,499	$4,100,843
Colored	462,389	40,449	152	11	462,541	40,460
Total	76,887,834	4,091,149	341,206	50,154	77,229,040	4,141,303
1905.						
Uncolored	463,981,306	27,054,660	508,422	73,177	464,489,728	27,127,837
Colored	10,928,704	706,435	500	50	10,929,204	706,485
Total	474,910,010	27,761,095	508,922	73,227	475,418,932	27,834 322
1906.						
Uncolored	494 287,746	29,377,179	350,089	51,826	494,637,835	29,429,005
Colored	4,233,656	264,009	24,874	2,040	4,258,530	266,049
Total	498,521,402	29,641,188	374,963	53,866	498,896,365	29,695,054
1907.						
Unbleached	73,589,751	4,970,762	260,353	42,312	73,850,104	5,013,074
Bleached	13,484,091	769,552	67,941	6,465	13,552,032	776,017
Colored	762,123	56,988	308,605	32,228	1,070,728	89,226
Total	87,835,965	5,797,302	636,899	81,015	88,472,864	5,878,317
1908.						
Unbleached	33,854,835	2,328,974	189,989	36,238	34,044,824	2,365,212
Bleached	14,676,435	751,383	....	....	14,676,435	751,383
Colored	1,347,294	86,384	412,011	50,578	1,759,305	136,962
Total	49,878,564	3,166,741	602,000	86,816	50,480,564	3,253,557
1909.						
Unbleached	120,952,947	6,984,078	611,082	73,450	121,564,029	7,057,528
Bleached	17,415,127	908,681	....	....	17,415,127	908,681
Colored	1,620,499	111,402	203,790	23,485	1,824,289	134,887
Total	139,988,573	8,004,161	814,872	96,935	140,803,445	8,101,096
1910.						
Unbleached	92,452,575	5,609,713	945,021	86,297	93,397,596	5,696,010
Bleached	543,298	29,817	25,159	3,814	568,457	33,631
Colored	2,045,282	122,788	158,770	17,021	2,204,052	139,809
Total	95,041,155	5,762,318	1,128,950	107,132	96,170,105	5,869,450
1911.						
Unbleached	78,332,455	5,140,455	284,566	45,435	78,617,021	5,185,890
Bleached	1,570,050	96,918	16,787	3,247	1,586,837	100,165
Colored	869,037	57,961	98,274	13,138	967,311	71,099
Total	80,771,542	5,295,334	399,627	61,820	81,171,169	5,357,154

Years and articles.	China.		Hongkong.		Total.	
	Yards.	Value.	Yards.	Value.	Yards.	Value.
1912.						
Unbleached	103,566,655	$7,069,681	697,228	$104,311	104,263,883	$7,193,992
Bleached	875,984	50,468	138,136	17,103	1,014,120	67,571
Colored	3,976,194	233,457	201,184	25,706	4,177,378	259,163
Total	108,418,833	7,373,606	1,036,548	147,120	109,455,381	7,520,726
1913.						
Unbleached	78,161,164	5,373,877	824,442	133,598	78,985,606	5,507,475
Bleached	25,597	2,732	263,666	23,620	289,263	26,352
Colored	2,275,086	208,376	1,028,711	107,007	3,303,797	315,383
Total	80,461,847	5,584,985	2,116,819	264,225	82,578,666	5,849,210
1914.						
Unbleached	83,349,403	5,667,393	640,120	103,435	83,989,523	5,770,828
Bleached	2,495,294	190,076	2,480	415	2,497,774	190,491
Colored	3,311,753	238,939	176,300	20,520	3,488,053	259,459
Total	89,156,450	6,096,408	818,900	124,370	89,975,350	6,220,778
1915.						
Unbleached	16,452,426	1,122,257	82,336	18,070	16,534,762	1,140,327
Bleached	101,247	11,401	102,047	12,101	696,716	84,774
Colored	493,422	61,272				
Total	17,047,095	1,194,930	184,383	30,171	17,231,478	1,225,101
1916.						
Unbleached	9,230,592	638,695	302,570	64,562	9,533,162	703,257
Bleached	1,383,753	84,735	55,283	7,500	1,439,036	92,235
Colored	1,198,273	119,080	161,678	20,015	1,359,951	139,095
Total	11,812,618	842,510	519,531	92,077	12,332,149	934,587
1917.						
Unbleached	2,012,597	162,262	149,520	37,694	2,162,117	199,956
Bleached	434,186	52,486	382	46	434,568	52,532
Colored	1,992,871	192,510	584,768	72,530	2,577,639	265,040
Total	4,439,654	407,258	734,670	110,270	5,174,324	517,528
1918.						
Unbleached	4,100,086	528,587	87,008	21,369	4,187,094	549,956
Bleached	1,093,693	154,480	85,719	22,731	1,179,412	177,211
Colored	2,203,544	368,628	403,558	108,645	2,607,102	477,273
Total	7,397,323	1,051,695	576,285	152,745	7,973,608	1,204,440

TRADE METHODS.

SALES THROUGH COMPRADORS.

The cotton piece-goods trade in China is in the hands of English, Japanese, American—and formerly German—importing firms that are frequently branches of exporting houses in the home country or that have their own correspondents or agents in the places where purchases are made. Business is conducted on a commission basis or on outright purchases. In recent years a growing tendency has been manifest on the part of the houses engaged in the trade to send orders to the manufacturers or exporters for Chinese clients instead of on their own account.

No direct trade exists between the large Chinese dealers and manufacturers or exporters in foreign countries, and the sale and distribution of goods by importers in China is conducted through native "compradors." In the early days of Chinese trade the foreign merchant had not the means of judging the buying capacity or financial standing of the native dealers, and he had to employ Chinese, who took the responsibility of guaranteeing and enforcing payment from the Chinese buyers and enforcing delivery of goods on contracts for the sale of native produce to the foreigner or acceptance of goods purchased by the Chinese. For his services he was paid a fixed salary and was under bond or guaranty for the faithful performance of his duties and for the money which he handled. With the growth of trade the importance and influence of the comprador has increased until to-day he occupies a unique and powerful position in the commercial life of China. Sometimes he is a partner in the firm and sometimes he buys goods on his own account. He has his own organization, which often extends to distant cities and trading centers. In addition to his salary, he frequently receives a commission of not more than one-half per cent on all goods purchased or sold for the firm which employs him. He engages and pays the Chinese staff and handles the native customers, who seldom have direct dealings with the foreign members of the firm. He keeps in close touch with market conditions and is able to determine what goods can be sold, while his knowledge of the financial standing of native dealers enables him to protect the foreign firm from loss.

The system is not without its abuses and drawbacks. Sometimes too much dependence is placed in the comprador and the foreign firm is in ignorance of actual conditions in trading circles. It is also claimed that the comprador takes too much "squeeze," both from his employers and from the dealers for whom he acts as a middleman, and that he demands payment from the native staff for employing them and then retains a part of their wages as his commission. But the foreign firm is usually cognizant of this practice and counts it a part of the expense of employing the comprador. The usefulness of the comprador and his value as an intermediary between the foreign firm and the native dealer far outweigh any disadvantages inherent in the system, and the compradors, with their keen business ability and knowledge of the country and its people, have been an important factor in the development of trade in China.

The outsider is struck with the fact that the compradors possess a vast store of information, not only with regard to business in their own country, but conditions in the United States and England. They follow the American cotton market closely; they watch the course of exchange, because China's currency is on a silver basis; and they study world-wide commercial and political conditions, because all these matters have a direct or indirect bearing on the market in China. They know the requirements and the relative importance of the principal consuming districts in China and the exact kinds of goods that each district uses. It is doubtful whether there exists in any other country in the world such an excellent system for the dissemination of information and for the distribution of imports or the collection of goods for export as China has in the institution of the compradors. The importers claim, however, that the compradors in recent years are less conservative and more inclined to indulge in speculation than formerly, and it is no longer the rule for them to guarantee the foreign firm against loss.

ENGLISH SELLING METHODS.

Because the United Kingdom supplies such a large part of the cotton goods consumed in China, a study of English selling methods should be of interest to American manufacturers. In the first place, it should be stated that, with one or two rare exceptions, no English manufacturers have their own direct agents in China. The greater part of the business in English piece goods is carried on by large exporting firms having their home offices in London or Manchester and branches in Shanghai, Hongkong, Hankow, Tientsin, and other important trading centers; again, the importing firm in China may have a buying agent or correspondent in England through whom all purchases are made. In either case the exporter or the manufacturer sends out traveling men once or twice a year to canvass the market and increase the sale of goods. For making purchases the buying agent in England usually charges the firm in China 1 per cent on grey and white goods and 1½ per cent on colored goods. If the importer is working on a strict commission basis he usually charges the dealer 2 to 2½ per cent commission, but very frequently the importer buys the goods outright and sells them at a price that will yield him a profit.

When the buying agent or shipper in England makes a shipment he draws on the consignee in China at four months from the receipt of the shipping documents with interest at the rate of 6 per cent per annum. The importer, if he has purchased the goods on order for a Chinese customer, looks to the latter for payment, and the purchaser is required to pay for each bale of goods as he takes delivery from the importer. If the order is for 100 bales, 25 monthly, the goods may arrive in one or two shipments and be stored in the warehouse, or godown, of the importer. Then as the delivery dates fall due the Chinese dealer must take the goods at the price, "ex godown," agreed upon, plus the commission, until the entire shipment has been delivered and the final payment made.

In making payment for goods as delivered, the Chinese dealer generally gives to the importer a native bank order which is payable in 5 days in Shanghai and in 3 days, 10 days, or two weeks in some other cities. This bank order is practically a draft on the native bank. The importer turns it over to the foreign bank which holds his draft and the proceeds are credited to his account. This is the accepted method of carrying out transactions in the purchase and sale of cotton goods, and in the main the same method is used between the Shanghai dealer and the interior merchant to whom he sells. In practice, however, there is no strict adherence to the rule, and it is frequently modified by mutual agreement when the native buyer has a good credit rating or, by necessity, when he is unable to take delivery of the goods.

When a situation arises in which Chinese dealers are unable to take delivery of goods on order, the foreign importer has the alternative of suing the dealer in the Mixed Court and possibly forcing him into bankruptcy, or of extending the time of payment and holding the goods. This is obviously a hardship on the importer, but he usually finds it to his interest to carry the dealer until he can take delivery of the goods. All interest charges, however, must be borne by the customer. Sometimes the importer secures an extension of his draft from the Manchester firm and he in turn extends the time in which the Chinese dealer may have agreed to take delivery of the goods ordered. In case the latter continues to delay taking delivery and it appears that legal action will not bring satisfaction, the foreign firm may cancel the contract with the dealer, take over the goods on its own account, and hold them or sell them to another customer.

It is a somewhat surprising fact that trade in China is possibly more firmly established on a cash basis than in any other country in the world. Credit in the modern sense does not exist, and practically all transactions are on the basis of payment on delivery. The following comments on this subject by Mr. S. R. Wagel in his recently published book, "Finance in China," are interesting:

> It is certaintly surprising that the commerce of China should have developed in respect of credit on lines almost entirely different to those of other countries. It is mainly due to the fact that the methods of government have remained practically what they were centuries ago that it was found impossible to extend credit in respect of trade. In European countries, or others that have come under the influence of European methods and laws, it is always easy to get hold of a defaulting debtor or a person that breaks his contract. There were regular processes of law by which the aggrieved party could secure satisfaction. Besides, it is an acknowledged fact that credit has expanded with the increase of communications, which have lessened the chances of the parties to a contract defeating the ends of justice. In this country, however, even to-day the means of communications are very meager, in spite of the large increase in the mileage of railways. Beyond the treaty ports justice has been at the will and pleasure of the local official; and it is certainly too great a risk to the foreigner to extend credit on the basis of the existing means of communication and the methods of legal procedure in the country. Consequently, all business has had to be done on the basis of payment on delivery. Moreover, there was no obligation on the part of the foreigner to extend credit, especiallly in view of the fact that it was almost next to impossible to get Chinese produce on credit from Chinese sellers. It is no doubt partly due to the want of credit that the total commerce of the country has not developed to the extent to which it would otherwise have—although there have been other contributory causes to restrict the volume of foreign trade.
>
> Although there is no credit as understood in European countries, there are, however, certain facilities which may more or less be classed under the category of credit. It is impossible to conduct any business without trust, and the very fact that the foreigner is willing to take the orders of Chinese and take the risk of ordering goods from the manufacturer shows that there is, however, a certain element of trust in China trade. If the Chinese dealer or the broker who deals with the foreigner direct should take it upon himself to repudiate a contract, as has been done on a few occasions, the foreigner has very little chance of enforcing the contract. Still, except under the stress of exceptional circumstances, it has been the general practice that the Chinese dealer fulfills his engagements, even though he has to do it at a great loss to himself. In the same manner the dealer in the outports, or the real merchant, fulfills his obligations to the dealer in the ports, as a rule, without any difficulty whatsoever. The only respite that either the dealer in the ports or the merchant in the outports obtains is through the system of the native orders. By means of these native orders he gets a delay of 5 or 10 days, as the case may be—the time that it is supposed to take for the dispatch of money from the interior marts to the ports. The expansion of trade has naturally led to a large increase in the number of native orders, and although there is absolutely no credit as between the dealer and the merchant, the merchant nevertheless establishes a certain system of credit with the banks. The banks do not always issue orders after receiving the amount for which they give the orders. The merchant or the dealer has special arrangements with the native banks, and in a large majority of cases the native banks issue large overdrafts to merchants and dealers. Whatever arrangement may be come to between the bank on the one hand and the merchant on the other, there is no doubt that, as a rule, where the integrity and the standing of a merchant are held to be sufficiently good the banks give sometimes credit for as long a period as six months. The granting of such credit by the native banks has a very important bearing on the several crises that occurred during the closing year of the Manchu régime. The credit offered and practicable in the trade, however, has not at all been commensurate to the volume of it.

CONSIGNMENT SHIPMENTS.

An important feature of English trade is the practice of the manufacturers or shippers in Manchester who desire to introduce their lines on the Chinese market in consigning shipments to a reliable firm of importers with the understanding that if the cloth or the brand becomes popular the firm may have the exclusive right of sale of the goods. Special inducements, such as furnishing pieces one-half yard longer than the nominal length, putting an extra 5-yard piece of cloth in every case or bale, or furnishing a small gift, such as a watch or other piece of jewelry, are sometimes offered in order to establish the line on the market. One English manufacturer who furnished an extra 5-yard piece of cloth in every case soon found that his chop had become very popular, and his business has continued to grow. These methods appeal very strongly to the Chinese, among whom the custom of receiving a "squeeze" on every transaction is as prevalent as ancestor worship. Uusually the retail shops divide the proceeds of the sale of the extra yardage among the clerks at the end of the year. The Japanese, it is claimed, often put up their sheetings in 41-yard lengths instead of the nominal length of 40 yards. These goods are nearly all dyed by the natives, but it is only natural that the buyer should favor the chop or brand of goods that carries the extra yard.

All these practices and many others are indulged in by both English and Japanese manufacturers in their efforts to secure trade. American manufacturers have never adopted them, nor have they been inclined to ship goods on consignment. Unquestionably there is a certain amount of risk involved in consigning goods, and not infrequently the interests of the mill are not properly safeguarded. But it must always be borne in mind that competition to secure a share of the enormous cotton-goods trade of China is at all times very keen and severe. The importing firms which have a high standing and excellent facilities for selling goods are offered every inducement to handle new lines of cloth or new chops on goods similar to those sold on the market. Strong, long-established houses in China have their own connections with manufacturers or exporters in the producing countries, and they have no special interest in taking up new brands or chops. They take the attitude that the initiative must come from the manufacturer, and that if he is keen to enter the trade he must make it profitable to the importer to handle his goods.

One of the prominent importers showed from his records of the results obtained from consignment shipments that in practically every case the business, starting with lots of 10 or 20 bales at a time, had steadily increased as the brand became known on the market until 50-bale and 100-bale lots were the rule. If due care be exercised in selecting a firm to handle the trade, and suitable goods under an attractive brand or chop are furnished, there is every reason to believe that American manufacturers could adopt this method to advantage.

JAPANESE METHODS.

The greater part of Japan's cotton piece-goods trade is concentrated in North China and Manchuria, and the manner in which this trade has been gained has been so fully and clearly set forth in Special

Agents Series No. 86, "Cotton Goods in Japan and Their Competition on the Manchurian Market," that elaborate comment is unnecessary. The Japanese made a thorough study of the field and they have concentrated their efforts on the sale of grey sheetings and drills, nankeen, which is an imitation of the narrow grey and colored cloth woven on hand looms in China, and, more recently, Canton flannels, jeans, and Turkey-red shirtings.

The most important factor in the development of Japanese trade has been the large and important firm of Mitsui Bussan Kaisha. It maintains branches or agents in practically every treaty port in the country, is extremely progressive, and has a good reputation among the Chinese. It owns a large interest in several of the principal Japanese cotton mills and sells the products of numerous others. As it has practically unlimited credit, purchases many of China's products, particularly silk, beans, and cotton, and owns or controls several steamship lines, it has excellent facilities for selling and distributing cotton goods. This firm, like other Japanese firms handling cloth and yarn, has, in many instances, cut out one or two of the middlemen between the manufacturer and the consumer and eliminated transshipment and other charges which English and American goods must bear.

Japanese firms do not sell direct to the consumer, but their agents in all the chief trading centers watch the market and its requirements, maintain stocks of goods for immediate delivery, and offer every possible inducement to the leading Chinese wholesale dealers to handle Japanese goods. These inducements sometimes take the form of extending credit, and sometimes of an agreement to take native produce, such as beans, in exchange for cotton goods. They quote all prices ex godown at Mukden, Newchwang, Harbin, Tientsin, or other cities in which the sale is made, eliminating all questions of freights, duties, commissions, exchanges, etc. In fact, as a representative of an American cotton-goods firm, who spent some time in Manchuria, expressed it, the Japanese have practically reduced their piece-goods business to the basis of buying groceries at home at the corner store with a charge account to the good customer. This method appeals very strongly to the Chinese. Not infrequently Chinese dealers purchase goods on 30, 60, or 90 days' credit, make a quick sale for cash, and use the proceeds to speculate in exchange, or to lend at a high rate of interest, thus using their credit to make a turnover for themselves.

Undoubtedly the Japanese have certain special advantages in Manchuria. They secure reduced rates on railways and steamship lines running from Japan on shipments in quantity under general provisions that practically only Japanese avail themselves of; they virtually control the banking, railway, and postal facilities; and they have a large population of Japanese in the country through whom they can distribute their goods. It is also claimed that their goods escape local Chinese taxes because they are shipped to the railway areas or concessions of the Japanese South Manchuria Railway. When leaving these areas for the interior the goods become subject to Chinese taxes, but the Chinese are adepts at evading taxation and undoubtedly many of the Japanese goods sold in the railway concessions are not taxed.

Since June, 1913, all goods entering China via Antung, the border town between Manchuria and the Japanese possession, Chosen, are entitled to a one-third reduction in the customs tariff. This reduction applies to the goods of all nations, but the Japanese alone appear to have taken advantage of it, owing to the fact that English and American cotton goods for Manchuria are handled through Shanghai and Tientsin, from which ports the easiest and cheapest route to Manchuria is via Newchwang or Dalny; to ship via Japan or Chosen and thence by rail via Antung would doubtless cost, in additional freight and transshipment charges, so much as to offset the advantages to be gained from the reduction in duty.

Unquestionably the systematic and aggressive methods employed by the Japanese, combined with the natural advantages which they enjoy with regard to the market, have exercised a strong influence in the phenomenal growth of their trade; but of equal importance is the fact that they have succeeded in producing goods suitable to the requirements of the Chinese at a lower cost f. o. b. the mill than their competitors. They also cater especially to the Chinese market and regulate their prices not always according to the actual cost of goods but according to market conditions. When prices are high and goods are not moving freely they will quote a little under the market to get business and keep their machinery going. China, with its enormous capacity for consuming cotton goods, is a market in itself, subject to its own conditions and peculiarities, and the Japanese have been quick to realize this and to adjust their methods to suit it.

Up to the present time the Japanese have attained their greatest measure of success in selling cotton cloth in Manchuria and North China, and several prominent business men in interviews have expressed the view that it will be practically impossible for American or English cotton manufacturers to combat the Japanese in Manchuria or attempt to offer equal facilities in the sale of their goods, because the cost would be far too great to make it profitable. According to some of the best-informed men in China, Japan is in a fair way to secure commercial supremacy in Manchuria and the field for the sale of cotton goods in that market is gradually being closed to other countries. This rather pessimistic view of the situation is not shared by all, but it is certainly the prevailing opinion among many of the cotton-goods importers and dealers with whom the writer has discussed the matter.

As regards Central and South China, the Japanese have not been nearly so successful in the cotton piece-goods trade as in North China and Manchuria, not only because the demand for the principal goods that the Japanese mills make, viz, sheetings and drills, is not so large in those sections, but because the advantages that obtain in Manchuria—proximity to the market, control of the railways, the presence of a large Japanese population, and political influence—are lacking. While, therefore, the Japanese may be expected to dominate the cotton-goods trade in Manchuria, the market in South, Central, and, to some extent, North China, as viewed from the present outlook, may be regarded as an open field for the development of the trade of all nations.

AMERICAN METHODS.

American cotton goods reach China through export houses in New York with branches in China. Most of these are American firms, but a few large English firms and one Japanese firm with New York offices handles some of the business. The number of firms engaged in the trade is not nearly so large as formerly, because of the rapid decline in the sales of American cotton goods and the losses that many of the firms suffered following the boom days of 1905 and 1906, during and immediately after the Russo-Japanese War.

The export houses in New York purchase goods from the agents of the mills, and in two important particulars the methods employed are radically different from the methods used by the English. In the first place, the goods are usually sold under the mill brand and not the brand of the importer as in the case of English goods. Secondly, except in a few rare instances, no one export house has exclusive control of a mill brand in the China market.

It is not to be doubted that the American methods have their advantages. If the mill brand is used and it becomes firmly established on the market, the mill secures the benefit of the increased demand. If the importer has his own brand put on the goods the mill loses its identity, and it is always possible in standard cloths, such as sheetings and drills, for the importer to secure his supply of goods from another source if any differences regarding price, quality, shipments, etc., arise with the original mill. This works a hardship on the mill which may have made special preparations for producing the particular kinds of goods in demand.

American manufacturers have also generally refused to confine a certain brand to one importer, preferring rather to sell to any firm that desired to buy. While the practice of giving exclusive control of a brand to one firm may be subject to some abuse and may restrict trade, it is undoubtedly a farsighted and commendable policy if due care be taken in the selection of the firm and proper support and cooperation be given to it. By far the greater part of English trade has been built up along these two lines, the importer using his own brand and having the exclusive right to the sale of goods under it. This gives him an incentive to build up a trade, because, once a demand for the goods is established, he is sure of a profitable return for his efforts and expense in introducing them. The importer who handles American goods, on the other hand, is on the same basis as many of his competitors who have an equal opportunity to buy the same goods under the same brand.

From the importer's standpoint there are two great disadvantages in this system. In the first place, if an importer selects a certain brand of American cloth and succeeds, after considerable work and expense, in establishing it in the market, he soon finds that competing firms can purchase the identical goods and secure some of the benefits which he has made possible in making the cloth popular in the market. In the second place, this practice, in the opinion of many, often results in that great demoralizing and depressing influence in the Chinese cotton-goods trade, the overflooding of the market. A brand of American sheetings may, through the aggressive efforts of an importer, become well established on the market and be in good demand; other firms with New York branches or connections, hoping to profit by the popularity of the brand, may order on their own account a quantity of the same goods, taking advantage of the mill agent's policy of selling to all who want to buy. The immediate result is that the market becomes overstocked; dealers are induced to load themselves up with more goods than they require, competition reduces prices to such a low level that there is no profit in handling the goods, and the importers become disgusted with the whole business and turn to other lines.

The competition of cheap Japanese sheetings and drills has been a strong factor in the decline of the American cotton-goods trade in China, and its importance should not be overlooked; but the disappearance of many brands of American cloths that formerly had a good sale in the market has been hastened, in the opinion of practically every importer whom the writer interviewed, by the failure of American manufacturers to properly conserve their interests and confine the sale of certain brands to a single firm.

SHIPMENTS THROUGH SHANGHAI.

Practically all the American goods exported to China are first shipped to Shanghai and then distributed through Chinese dealers in the north and Manchuria, the principal markets in which they are sold. At times when the demand has been unusually good, shipments have been made direct to Tientsin and Manchuria, but this is the exception and not the rule. The relative merits of more direct trading with Manchuria and the elimination of Shanghai as a transshipping point for American goods, as compared with the method that has been followed through many years, have been the subject of numerous trade reports by consuls and others.

It would seem at first glance that our manufacturers have been working at too long a range in shipping goods intended for Manchuria to Shanghai, which is nearly a thousand miles distant from the place of consumption. Those who make this contention claim that not only is this an expensive method of handling the trade, involving extra charges at Shanghai for transshipment, storage, freight, middlemen's profits, etc., but that it does not provide any means for pushing the sale of American goods in the places in which they are finally used. The goods, from the time they leave the importer in Shanghai, are in Chinese hands. The dealer in Shanghai sells to the dealer in Newchwang, who in turn sells to the merchants in other cities or in the interior of Manchuria. The shipment and the sale throughout is controlled by Chinese.

So long as American sheetings and drills predominated in the market this method was satisfactory, because the cloth practically sold itself. Since the Japanese have entered the field, however, with their aggressive and systematic methods, by which they get in closer touch with the consumers, it is claimed that many of the Chinese merchants, whose chief interest is to make money, have found it both easier and more profitable to buy Japanese goods. Stocks of the latter are held at the important trading centers, and there is a representative of the importer on the ground to push the sale of goods, adjust claims, and facilitate trade. The Chinese dealer who distributes American goods has no sentimental or other reasons for increasing sales, and when the Japanese offer suitable goods which he can handle with less expense and trouble and on a more profitable basis, he naturally prefers to buy them. Those who advocate direct selling assert that considerable expense for extra handling and middlemen's profits could be saved, while if there were American representatives on the spot they could push the sale of our goods, keep a close watch on the market, and by carrying stocks of goods avoid long delays in delivery.

THE ARGUMENT FOR SHIPPING VIA SHANGHAI.

The importers of American goods in Shanghai are practically unanimous in the opinion that the present method of selling and distribution is the most economical that can be devised and that any attempt to adopt the Japanese system would be so expensive and hazardous as to make it impossible to carry on the business profitably. The Japanese can easily afford to have their own representatives on the field because the cost of the organization, in salaries and office expenses, is comparatively low, since the Japanese are willing to work for much less money than Europeans or Americans. It is claimed that the Chinese dealers to whom the importers of American goods sell in Shanghai maintain a far cheaper and more effective organization for distributing goods in Manchuria and other parts of the country than it would be possible for them to establish. The Chinese are in close touch with the trade, they have a thorough knowledge of market conditions, and they work on a very narrow margin of profit. The importers also state that much of the Manchurian trade is on a credit basis, and that for them to attempt to extend credit to the native dealers would not only be extremely hazardous but would require considerable capital, which would necessarily add to the cost of the goods. The Chinese dealers, they state, are in a much better position to know the financial standing of the native merchants and to make collections than themselves. They admit that the method of stocking goods at Shanghai and reshipping them to Manchuria through Chinese dealers adds to the cost of the goods, but they claim that it would be impossible to sell them at a lower cost if they had to maintain their own branches in Manchuria with Americans in charge.

One of the largest and most important New York firms exporting cotton goods, with a branch in Shanghai, attempted several years ago to establish more direct relations with Manchuria and sent its own representative to the field, but the attempt was never successful and the scheme was abandoned. Those who criticize this effort on the part of the American firm assert that the failure was due to the fact that all sales were for cash and no credit was extended. It would doubtless have been impossible, however, for the firm to have extended credit without a great deal of expense and possible loss in many cases, and to cover this expense it would have been necessary to raise the price of the goods to such a point as to seriously restrict the trade. It must also be borne in mind that if, as some claim, goods can be sold in Manchuria through Shanghai dealers, as at present, at a minimum cost, any organization that might be established in Manchuria would always have to contend with the competition of the Shanghai native dealers who, with their long-established connections and working on a narrow margin, could offer at lower prices goods similar to those handled by the American firm in Manchuria.

Another reason advanced for the economy of the present method is that American firms in Shanghai do not confine their business to American cotton goods but handle English piece goods and other lines of imports, while many of them also export Chinese products. The organization and selling expenses are, therefore, widely distributed over many articles of trade, and the unit cost of handling each article is greatly reduced under present conditions. With the total sales of American cotton goods in China amounting in value to less than $1,500,000 annually, no firm or organization could maintain itself on the profits of handling cotton goods alone, because the margin is too narrow and the turnover too small. It would be possible, of course, to carry other lines and to engage in export trade, but the field in Manchuria would be much smaller than the field in Shanghai.

COMMISSIONS SMALL—WRONG ASSUMPTIONS.

Nearly all the arguments in favor of direct selling to Manchuria are based on the assumption that the middlemen between the manufacturer and the retail dealer exact large commissions; one enthusiastic advocate of this method claimed that their commissions amounted to 12 per cent or, with the added cost of interest, 17 per cent. But those who actually know true conditions are aware that this is a false assumption. In actual practice the New York selling agent charges the mill not more than 4 per cent on gray goods. Out of this 4 per cent a commission of one-half of 1 per cent is paid to the broker who acts as an intermediary between the selling agent and the export house. The latter generally charges the foreign importer 1 per cent for making purchases, and he in turn charges the Chinese dealer 1½ per cent. When the New York export house has a branch in China, the commission which the dealer pays is also 1½ per cent, which theoretically is divided between the New York house and the branch office. It is the generally recognized rule in China that the dealer must pay 1½ per cent commission on American goods, 1 per cent on Japanese goods, and 2 to 2½ per cent on English plain gray and white goods. The dealer who buys in Shanghai is usually content to charge the Manchurian wholesale merchant 1 per cent. The commission between the latter and the retail merchant in the interior is seldom more than 3 or 4 per cent, thus making the total cost in commissions between the mill and the retail merchant 8½ per cent to 9½ per cent.

Even assuming that an organization of American manufacturers or mill selling agents would be able to reduce the total cost in commissions to 5 or 6 per cent, which would be remarkably low, particularly during the first few years, it is very doubtful whether any large increase in our trade could be expected, because Japanese sheetings and drills that compete directly with our own goods are generally sold at prices ranging from 20 to 25 per cent lower than the price of American goods of nearly similar weight and construction.

The whole question of more direct relations between the American manufacturer and the retailer or consumer in foreign countries is one that constantly engages the attention of students of trade, export organizations, and business men, and the arguments on both sides are generally characterized by a failure to appreciate the true conditions. From the manufacturer's standpoint the greatest advantage that could accrue from direct selling in Manchuria would be the fact that under such a method his goods would not lose their identity, for his own representative would be on the ground to push the sale of goods. On the face of it, it seems an unnatural and awkward arrangement to concentrate the sale and distribution of goods in a city that is nearly 1,000 miles from the place of consumption. It certainly is difficult for American firms in Shanghai to know actual conditions or to keep in close touch with the trade in Manchuria, and this fact has frequently led them to induce Chinese buyers to place orders for more goods than the demand justified. After the goods leave the importers' hands, very little interest is taken in their final disposition; and it is difficult, if not impossible, for the importers to know at first hand for what purpose they are used or exactly where they are consumed. It is also true that without personal contact with the retailer much more trouble is likely to arise from claims, particularly on a declining market.

DIRECT SELLING PRACTICABLE UNDER A STRONG ORGANIZATION.

The conclusion that the unprejudiced investigator must draw from a close study of the conditions is that direct selling in Manchuria under a strong organization that would absolutely control the sale of all, or nearly all, the sheetings, drills, and other American lines of cotton goods that the United States makes for the China market would result in a substantial increase in our trade. The difficulties of securing cooperation among the competing American manufacturers or selling agents have hitherto been so great as to make it almost impossible. But even if it could be effected it is extremely doubtful whether such an organization would be able to appreciably reduce the selling costs or to operate on a safe and profitable basis in view of the risk involved. If, however, the organization, instead of selling to the retailers, should confine its operations to the large dealers in Manchuria and eliminate the question of credit and finance, and could employ only one or two American managers with competent Chinese compradors, or agents, under them, it is possible that the scheme would be successful.

The financial element is the strongest point in favor of the Shanghai importers' contention that the present methods can not be improved upon. They insist with great emphasis that, given the American goods at a cost that will not be more than 10 per cent or 15 per cent above the price of nearly similar Japanese lines and with the proper support and cooperation of the manufacturers, they can sell them at as low a cost in commissions and in as large quantities, through a Chinese organization that has been in existence for many years, as would be possible under any other plan that might be devised. So far from exacting excessive commission, they claim that the margin on which they work is far from being commensurate with the risk and expense involved, and that the decline in the number of firms actively engaged in the American cotton-goods trade from ten or twelve firms 10 years ago to only two or three at the present time has been due primarily to the fact that it is extremely difficult to conduct the business on a profitable basis. The manufacturer, they say, whose interest in increasing the sale of goods should be equal to that of the exporter who handles them, is apparently unwilling to share any of the risk or expense of marketing and is content when he receives cash for his goods in New York. Moreover, they further state, the manufacturer in most cases fails to support them properly by giving them exclusive control of brands or by making up their own special brands, as English manufacturers do. The result has been that the exporters have found it more and more difficult and hazardous to handle American goods, and our trade has consequently declined from year to year.

STATEMENT OF A NEW YORK EXPORTER.

The argument of those who favor present methods in the sale and distribution of American cotton goods is very clearly expressed in the following statement made by a partner in one of the largest New York export houses, which has been engaged in the China trade for many years and has handled more American cotton goods in this market than any other firm:

> The export of cotton goods from the United States to China, apparently a simple matter of purchase, transportation, and sale, is one of the most complex of commercial operations. I need not tell you of the difficulties of merchandising in China, immensely increased by the fluctuations in silver, the debasement of the copper cash, the counterfeiting and adulteration of the silver pieces, the indiscriminate issue of unsecured paper notes—all reducing the already small purchasing power of the common people. You know the struggle for existence in China and how little the average man has there with which to feed and shelter and clothe his family. Is it any wonder that in the necessity that so cruelly presses upon him in this time of high prices he must take that in the way of cloth which will cover him and his wife and children, even though it may not be what he has been used to having and would now buy if he could? That explains why the Japanese have apparently gained so much of the trade with goods which the Chinese know are inferior, but which they can get at lower prices than the American cloth they prefer.
>
> Much argument is based by those who do not know conditions in the interior and those at Shanghai upon the Japanese method of distribution by an extension of credit and a sort of barter and the operations of the Standard Oil Co. and the American Tobacco Co. These latter, being monopolies in the distribution of whose goods cost and selling price do not have to be considered, are not of commercial significance. The methods of the Japanese are hazardous and would not help if there were not the lower prices to carry their goods into consumption. You know that it is impossible to give credit to the casual interior merchant, and that the Chinese dealers themselves do not do it. You know the existence of the merchant guilds at Shanghai and other ports and their value as distributing factors, far greater than anything that could be devised or established by any foreign enterprise. And you know the narrow margin of profit upon which native merchants operate, compelled by a fierce competition among themselves, adding a very small percentage to the cost of the goods after they leave foreign hands. The contention has been made and can be sustained that, leaving out transportation charges, the distribution of American goods between New York, where they come into the hands of the exporter, and the consumer in China is at a smaller cost of commissions and profits than that in any other direction at home or abroad.

ADVANTAGES POSSESSED BY SHANGHAI.

Practically all the cotton-goods importers that supply Central and North China, as well as the large Chinese dealers, have their principal offices in Shanghai, and the city offers better financial, commercial, and shipping facilities than any other port in the country. Shanghai occupies the same position with regard to China as New

York in the United States, Constantinople in Turkey, Alexandria in Egypt, or Aden in the Red Sea market. Large stocks of goods are held in warehouses or godowns at Shanghai by the foreign firms, either on orders or on their own account. The weekly auctions of piece goods by which large quantities of goods are sold give an added importance to Shanghai. Nearly all the large merchants in the interior have their own brokers or agents in Shanghai, through whom their purchases are made.

The whole fabric and machinery of the trade is so organized and systematized that any attempt to carry on business direct with other ports without regard to Shanghai usually ends in failure. During 1914 one of the large auction firms in Shanghai decided that it would be an excellent plan to hold regular auctions in Hankow, a city of growing commercial importance in Central China, 600 miles up the Yangtze River from Shanghai, but the plan was unsuccessful because the merchants in Shanghai threatened to boycott the firm.

INFLUENCE OF THE GUILDS.

The organization among the cotton-goods dealers in China is one of the strongest in the world. Generally the organization takes the form of a guild, and any report on the trade of China would be incomplete without reference to these guilds. They came as a result of the method of government in China and the loose manner in which laws were administered, and were intended primarily for the advancement of the common interests of the merchants. The development of foreign trade has increased the power and influence of the guilds.

No rules of the guilds have been published, but they are generally organized for both social and business purposes. Each trade has its own guild and every large merchant belongs to the one that appertains to his own line of business. One of the most important functions of the guild is the arrangement of inland taxes with the local officials. In Shanghai, for example, the piece-goods guild pays a fixed sum annually to cover the local taxes on goods shipped to some of the neighboring interior points and collects the tax from the merchants. In fact, the Shanghai piece-goods guild practically controls the entire distribution of cotton goods from that commercial center. The guilds discuss trade questions of common interest, settle disputes between their members, and have been known to fix prices at which articles shall be sold and to combine in other ways to regulate trade. While in some respects they partake of the nature of chambers of commerce, they have much more power and exercise a greater degree of influence in the commercial life of the country, because the merchant, foreign or native, who attempts to oppose the will or policy of the guilds usually suffers serious consequences.

It is this long-established organization of merchant guilds that has assisted in maintaining Shanghai as a center of distribution for cotton goods. To attempt to eliminate Shanghai and sell goods on a large scale direct to Hankow, Tientsin, or any other commercial center in Central and North China would mean a serious loss not only to the merchants in Shanghai but to the numerous Chinese who are engaged in the transshipment and carrying trade. To the occidental mind it appears strange that the guilds should exercise such a tremendous influence in the conduct of trade and in directing the lines which it shall follow, but those conversant with conditions in China are fully aware of their power in commercial matters and the danger of attempting to oppose them.

Although the guilds still occupy an important place in the business life of China, their influence is not as great as formerly. This is due in part to the fact that with the growth of trade a large number of merchants whose methods are not as much above reproach as those of the merchants of 20 or 30 years ago have sprung up, and they resent the absolute power of the guilds and are less prone to abide strictly by their rules except when it is to their interest to do so. The merchant guilds will doubtless continue to maintain the system of distributing a large part of the foreign cotton goods imported through Shanghai, but there is no question that direct trade with other ports, particularly Hankow, Tientsin, and, in Manchuria, Dairen, Newchwang, and Antung, is increasing.

An important factor in the breaking up of the old system has been the development of the cotton-goods trade with Japan. It is natural that the Japanese should ship direct to Tientsin and Manchuria, because they are much nearer to those markets than to Shanghai. They have also established their own agencies in all the principal trading centers, where they maintain stocks of goods and sell direct to Chinese dealers. They have been aided in the establishment of direct relations without the intervention of Shanghai by the fact that their goods are generally offered at a lower price than those of their competitors, and on this ground merchants buy from them however much they may be averse to opposing the guilds.

DIRECT TRADE INDEPENDENT OF SHANGHAI.

An indication of the tendency of some of the ports to become independent of Shanghai in certain lines of cotton goods is the fact that the imports of gray sheetings direct from foreign countries at Tientsin in 1917 amounted to 829,780 pieces, as compared with 173,250 pieces imported from Chinese ports, principally Shanghai. In other words, more than 82 per cent of the total trade was direct. In 1908 only 140,807 pieces were imported direct from foreign countries, while 782,777 pieces were received through transshipment at Chinese ports, the amount of direct imports in this case being only about 15 per cent. Similarly, approximately 93 per cent of the grey drills imported at Tientsin in 1917 represented direct shipments, as compared with only a little over 60 per cent in 1908.

For the reasons previously stated (proximity to the market and the establishment of agencies), the tendency toward direct trade is much more marked in Japanese cotton goods than in the trade of other countries. England's largest trade is in grey and white shirtings and cotton Italians, and as a large part of these goods are sold through the weekly piece-goods auctions in Shanghai, it naturally follows that Shanghai continues to remain an important center of distribution for this trade. Prior to the European war German importers in Hankow and Tientsin were beginning to establish direct relations with Manchester and to eliminate Shanghai, but since then this tendency has, of course, been nullified.

AMERICAN COTTON GOODS SOLD MAINLY THROUGH SHANGHAI.

Reference has already been made to the fact that American cotton goods are sold almost exclusively through Shanghai, and the reasons given by the importers for maintaining this system have been fully stated. It is doubtless true that the Japanese methods under which goods are sold more directly to the markets in which they are consumed have some advantage over the method of selling in Shanghai to dealers who distribute the goods in the interior, since the Japanese are able to keep in closer touch with the people who actually consume the cloth they manufacture. But it is doubtful whether any European or American house could adopt the same methods on an economical basis; the cost of the maintenance of an organization similar to that of the Japanese would be too great. In view of the increasing competition of Japanese goods in this market, however, it is of the highest importance that American cotton manufacturers desirous of selling their goods in China should make a close study of the two methods in order to determine which may be regarded, in the long run, as the most advantageous and practicable.

One obstacle to direct trade is the fact that at times the through freight rate from New York to Tientsin is greater than the combined rate from New York to Shanghai and Shanghai to Tientsin. The importer in Tientsin who is authority for this statement said that where business is done on such a small margin as in cotton goods this constitutes an important factor, but that the American shippers could doubtless secure an adjustment in the freight rates that would eliminate the discrimination against Tientsin, particularly if much direct trade could be developed. The keen competition for trade in China makes it imperative that the most effective as well as the most economical method of selling and distributing goods should be employed, in order that the cost of the goods to the consumer should be brought to the lowest possible point. It is doubtful whether there is a cotton-goods market in the world where organized and cooperative methods of merchandising are so essential as in China.

TENDENCY TOWARD OVERBUYING.

Somewhat related to the importance of Shanghai in the cotton-goods trade of China is the tendency to overbuy and to maintain large stocks of goods in that port, which has frequently had a deleterious effect on the country's trade. The number of foreign importers established in Shanghai has increased rapidly with the development of the trade in recent years, and in their anxiety to procure business they either induce the Chinese dealers to place orders with them or order goods on their own account in the hope of selling them. The result has been that, not infrequently, the market has become overstocked beyond its power of absorption and trade has become stagnant.

Carrying charges are very heavy, and the ideal method would be to deliver direct from the steamer to the dealer. So long, however, as there is no cooperation among the importers and they are far removed from the markets in which the goods are consumed, over-importation is likely to result. Naturally some goods must be held to await their season, but it is seldom that importers find themselves in the fortunate position of being one of the few holders of a particular line of goods when a good demand springs up.

SUGGESTIONS FOR INCREASING SALES.

In many of the comments of critics of present selling methods and advocates of direct representation in Manchuria, two important considerations are frequently overlooked: First, in comparing our present cotton-goods trade with its former volume, the years 1905 and 1906, when our exports of cotton goods reached their highest level, should be eliminated because of the abnormal conditions which prevailed at that time and which were brought about by the Russo-Japanese War, the flooding of the country with money, and the unusual demand for cotton cloth from the two armies and from the Chinese, who had more money to spend; in the second place, up to 1907 the competition of Japanese manufacturers was a small factor in the trade, whereas since that time the industry in Japan and the export of cotton goods have expanded rapidly.

The first essential to success in foreign trade is to produce goods that will compete in price with those of other countries and that the masses of the people require. American sheetings and drills are superior in quality to the Japanese goods, but the margin of difference in the price of the two cloths is so great that the natural tendency in a country where the population is as poor as in China is toward a restriction in the sale of the former and an increase in the sale of the latter. If American manufacturers are unable radically to reduce this margin, which often amounts to 25 per cent, a reform in selling methods by which a saving of 2, 3, or even 4 per cent in the cost of goods to the consumer might be effected would hardly be sufficient to secure to us a very large share of the trade. But there is a class of Chinese who are willing to pay a premium for American goods, either because of their superior quality or because of their preference for old-established brands with which they are familiar, and it is in this direction that American manufacturers should concentrate their efforts to cultivate the trade and increase the sale of their goods. To this end careful consideration should be given to the criticisms of those who have been handling American goods in China for many years, and their objections to the present method of manufacturers with regard to the trade should be met in a spirit of fairness and an appreciation should be had of the difficulties with which they have to contend in their endeavors to save our trade from total annihilation.

AUCTION SALES OF PIECE GOODS.

The use of auctions for the sale of cotton goods is a factor of greater importance in China than in any other country in the world. These auction sales are held weekly in Shanghai. The principal firms engaged in the business are Maitland & Co. (Ltd.), Probst Hanbury & Co. (Ltd.), Jardine, Matheson & Co. (Ltd.), Noel Murray & Co. (Ltd.), and L. Moore & Co., all English firms. Their aggregate annual sales approximate 30 per cent of the total amount of cotton goods imported into Shanghai. Some of them sell goods for other firms, charging a commission that varies from one-fourth of 1 per cent to 1 per cent, according to private arrangement, the quantity sold, etc., and some of them do an indent business in addition to selling at auction. Maitland & Co., the largest auction firm in Shanghai, is a Manchester firm (formerly Thorne & Co.) which buys goods outright in England and sells them at auction at the best prices obtainable. Because they buy in large lots, they often secure goods at low prices.

Firms which do an indent business or purchase goods on their own account and sell them in the market claim that the auctions have a demoralizing effect on trade and make it difficult for them to operate on a profitable basis. Maitland & Co. originated the auction system of selling goods in 1873, and it has been growing in importance year by year. It was greatly stimulated in 1907 when many of the cotton piece-goods firms held large stocks of goods which the Chinese dealers, many of whom had ordered them, were unable to take off their hands. It is also claimed that constant losses in exchange led to an expansion in the auction business, for with a turnover which amounts in value in normal times to $1,000,000 gold monthly, the auctions have an important bearing on the course of exchange.

While sometimes goods have been sold at a loss under this method, the growth of the business would seem to indicate that it has on the whole been profitable to the firms engaged in it. There are several advantages in auction sales: They provide a means for quick sale, and thus obviate the necessity of carrying goods a long time at a heavy expense for storage, insurance, and interest; they make it possible to distribute goods over a wide extent of territory; and they bring the seller closer to the ultimate consumer. The dealers who attend the auctions in Shanghai constitute a distinct and separate class, and because they sell more directly to the retail merchants they can often afford to pay a higher price for the goods than if they made their purchases through importers who sell in the open market. Indent goods, or goods sold in the usual manner by importers, are often handled by brokers who sell to the dealers, who in turn sell to merchants in the interior. The auctions also afford an opportunity to dealers who require a small lot of goods for immediate delivery. In introducing a new brand of goods the English manufacturer often finds it advantageous to use the auctions, because under this method the goods may be distributed in small quantities in several districts. It is better for the manufacturer who is endeavoring to introduce his goods to sell 50 bales in 10-bale lots to five dealers than to sell the entire lot to one dealer.

The success of the auctions is also due to some extent to the fact that some of the auction chops or brands have been on the market for many years, and the Chinese merchants, who attach great importance to chops, can purchase the goods only at auctions. This doubtless accounts for the fact that a 10-pound grey shirting, for example, under an established chop, may bring a higher price at auction than a 10-pound shirting of equal or better quality, under a new brand, that is sold in the open market. Of course, the auction firms exercise a control over the sales by closely studying conditions, ascertaining the approximate quantity of a given brand or a given kind of goods which the market can absorb, and then putting up for sale only enough, or slightly more than enough, to meet the demand; and so carefully do the firms, through their Chinese compradors, gauge the requirements of the buyers that goods are seldom sacrificed at abnormally low prices.

The bulk of the goods sold at auction are English goods, and the principal lines are grey and white shirtings, jeans, T cloths, Turkey reds and cotton lastings, italians, and venetians. Some drills and sheetings are also sold at auction, but the total quantity is comparatively small.

A small quantity of American lightweight sheetings (which are classed as shirtings) weighing 4, 4.7, and 5 yards per pound are sold at auction under special brands. The manager of one auction firm stated to the writer that they had been fairly successful in selling American goods by this method, but that in the beginning the business had shown a loss because of the fact that the goods had to be sold at low prices in order to introduce the new brands on the market. He complained that all the expenses incident to his efforts and the losses which followed had to be borne by his firm. He stated that if American manufacturers would put special brands on their goods and make some concession in price in order to popularize and establish them, the auction sales of our goods could be substantially increased. After a demand for the brands has been created it is not difficult to raise the price of the goods so as to yield a good profit to the manufacturer. As an evidence of this fact he stated that certain established brands of American 4-yard and 4.7-yard goods often fetch a higher price at auction than in the open market.

Auction sales are for cash on delivery. The deliveries are usually made in two weeks, sometimes three, after the sale. The buyer is charged interest at the rate of 6 per cent per annum from the date of delivery agreed upon if he fails to take the goods at the time specified.

FUTURE OF THE TRADE.

It is somewhat difficult to draw definite conclusions with regard to the future of the cotton-goods trade of China. Trade has been seriously affected by political and economic conditions that have retarded the development of the country. Politics and trade are perhaps more closely intertwined in China than in any other part of the world, since the exploitation of the country's resources and the building of railroads are dependent on foreign nations, owing to the lack of sufficient capital within the country. But China's marvelous recuperative powers have been frequently demonstrated, and no one questions the future commercial expansion of the country.

Although problems must be solved and obstacles overcome, the vast population of China and the enormous agricultural and mineral resources of the country, which have hardly been touched, create a foundation for an enormous increase in trade. The railways which are being built will open up many parts of the interior hitherto lacking in adequate transportation facilities and provide a quick and easy outlet for native products that have a market abroad and a means for securing a wider distribution of goods imported from foreign countries. The development of mines, of oil and coal fields, and of the agricultural resources of the country will bring a greater degree of prosperity to the people and increase their buying power, while the establishment of industries will give employment at comparatively high wages to thousands who have hitherto existed on a very low scale of living. It is only fair to assume that the demands and wants of the 400,000,000 people in China will be substantially increased and enlarged with the modernization and progress of the country. The imports of cotton goods, which now amount to more than $125,000,000 annually, are susceptible of considerable expansion.

The building of cotton mills within the country will somewhat restrict the growth of this trade, but the progress of the industry will by no means keep pace with the increased demands of the people, who depend so largely upon cotton as material for clothing. Nor is it possible for the Japanese, in spite of the many advantages which they enjoy and which have been indicated in this report, to secure a monopoly of China's cotton-goods trade in the near future. The field is a broad one, with latent possibilities, and although American manufacturers can not hope to compete in the trade in yarn, for reasons that have been set forth, they could secure an appreciable share of the trade in piece goods, the aggregate imports of which are valued at more than $100,000,000 annually, if they set about seriously to study the requirements of the people, produce the goods to meet those requirements, and inaugurate an active selling campaign backed by a policy of persistence and cooperation.

Never in the history of China's cotton-goods trade were such splendid opportunities offered for American manufacturers to produce many lines of cotton goods which they have hitherto left untouched but which are consumed in large quantities in that country. Recently several representatives of important cotton-goods selling agencies in New York have visited China, and they have all expressed confidence in the possibilities that the present situation offers. We ought to have more of these representatives who understand the technical details of manufacturing on the spot to study the market and ascertain the exact kind of goods that can be profitably made in the United States and sold in China on a competitive basis.

In spite of the pessimistic views of some of those who have watched the rapid decline in our trade in sheetings and drills in Manchuria, there are excellent grounds for the belief that American ingenuity and modern methods of manufacturing will yet make it possible for the United States, the second largest producer of cotton goods in the world, to secure an appreciable share of the trade in this large and expanding market if we will avail ourselves of the opportunities which await us and which have been partly created by present worldwide conditions.

China is a vast field, susceptible of immense commercial and economic development and worthy in every way of the most serious consideration of American cotton manufacturers who are seeking a foreign outlet for their products. Because the field is so large the manufacturers of England, Japan, and other countries are devoting their best energies to securing the trade, and only a systematic campaign laid out on broad lines can successfully meet the competitive conditions which prevail in the market. The manufacturer who attempts to enter the field in a half-hearted way, selling only such goods as he can not dispose of at home or giving his attention to the trade in times when domestic conditions are bad and neglecting it when they are good, can never hope to be an important factor in supplying the demands of the people. The best plan and the only plan which can bring ultimate success must be based on a firm determination to enter the field permanently, to build for the future rather than the present, to make every possible concession in the beginning in order to introduce new and untried lines, and to carefully cultivate the trade by cooperating with the importers and supporting them in their efforts to extend the sale of American cotton goods in China.

COTTON MANUFACTURING IN CHINA.

Cotton manufacturing in China in a modern sense is of comparatively recent development. Before the war with Japan the Chinese were beginning to erect spinning mills, but only in a half-hearted way. Prior to 1895 foreigners were not permitted to operate mills, but among the concessions exacted from China under the treaty of Shimonoseki, signed in 1895, was the right of foreigners to import machinery and to engage in manufacturing industries of all kinds in the treaty ports of the country. Immediately several of the foreign firms that were large importers of English piece goods and Indian yarns took advantage of the provisions of the treaty and began the erection of spinning mills. Previous to this time there had been in operation six native-owned mills containing 183,000 spindles. By the end of 1896 a number of foreign mills, with a total of about 400,000 spindles, were in operation in Shanghai.

The rapidity with which the industry developed is indicated by the statistics of the cotton yarn and piece goods manufactured in local mills exported from Shanghai through the Maritime Customs. In 1896, 1,663,200 pounds of yarn and 134,626 pieces of grey sheetings, shirtings, and drills were shipped from Shanghai to other parts of China and foreign countries, as compared with only 198,993 pounds of yarn and 96,287 pieces of cloth in 1892. In 1899 the exports of cloth were not so large, but shipments of yarn increased to 28,250,666 pounds. These figures do not include exports through the Native Customs, nor is any account taken of the local consumption in Shanghai, figures for which are not available.

The following table shows the yarn and piece goods, the product of local mills, shipped from Shanghai during the years 1899–1918 through the Native and Maritime Customs to other parts of China and foreign countries:

Years.	Yarn.		Piece goods.		
	Maritime Customs.	Native Customs.[a]	Sheetings.	Drills and jeans.[b]	Cotton flannels.
	Pounds.	*Pounds.*	*Pieces.*	*Pieces.*	*Pieces.*
1899	35,588,266	....	48,400	....	....
1900	28,192,933	....	23,360	....	....
1901	28,019,466	....	23,460	....	....
1902	24,529,836	....	35,095	....	....
1903	13,327,466	....	31,840	....	....
1904	18,896,800	....	89,026	....	....
1905	18,560,933	....	70,980	....	....
1906	11,361,466	18,810,400	29,940	....	....
1907	24,852,800	4,191,200	86,304	....	....
1908	46,798,533	6,263,066	214,696	....	....
1909	51,003,600	3,946,133	330,251	....	....
1910	36,490,533	6,668,400	249,453	85	....
1911	45,657,866	7,522,266	461,703	79,508	....
1912	64,775,733	11,512,000	513,178	75,842	10
1913	59,746,000	8,135,066	461,112	139,325	40
1914	88,302,266	3,618,666	517,945	214,910	10,890
1915	99,815,067	2,986,800	689,982	339,603	27,992
1916	102,253,467	3,302,800	897,268	405,496	18,691
1917	124,071,600	2,636,933	1,065,020	500,393	20,967
1918	134,481,733	3,681,200	1,221,194	470,834	25,929

[a] No statistics of trade through the Native Customs prior to 1906 are available.
[b] Not separately classified prior to 1910.

The foregoing figures indicate the rapid strides that the industry has made in recent years in China.

In 1917, 42,400 pieces of grey sheetings and shirtings and 228,933 pounds of yarn were exported from Hankow. A large part of the production of the mill at Wuchang, just opposite Hankow, on the Yangtze River, is sold locally and does not enter into the trade returns. Similarly the yarn manufactured in mills outside of treaty ports is marketed in the interior, and it is impossible to obtain figures of the total production and export.

At the present time (1919) China has about 1,500,000 spindles and 7,000 machine looms, in addition to the tens of thousands of hand looms in use throughout the country. It is estimated that spinnings in China during 1918 totaled $60,000,000 in value. (See p. 322.)

The principal factors that have contributed to the establishment and growth of the Chinese cotton-goods industry have been the following: (1) A supply of native-grown cottons of sufficiently good quality for spinning low counts; (2) an enormous domestic demand for the product of the mills, which, in the case of yarn, by far exceeds that in any other country in the world; (3) low cost of power, which is secured through a good supply of coal from native mines and Japan, and, in Shanghai, by the unusually low rate charged for electric power generated by the municipality; and (4) an abundance of very cheap labor, which makes the cost of production lower than in any other part of the world, and which is not subject to any legal restrictions as to hours of work or age of employees.

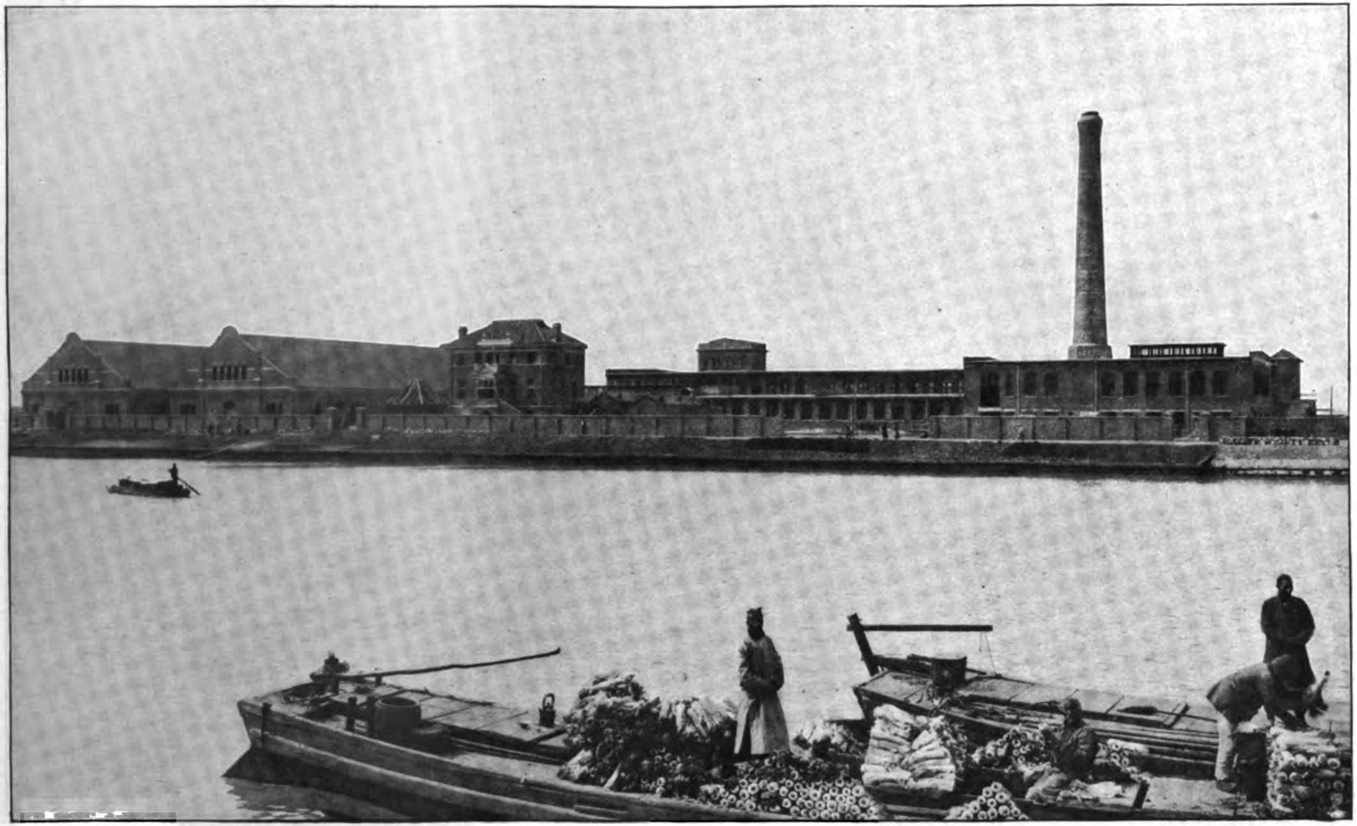
The cotton that is consumed in the mills is not as good in quality as American cotton, but it can be used economically for spinning the coarse counts, which are in greatest demand in China. Its low cost gives the mills a marked advantage in the production of heavy sheetings and drills, in which the value of raw material constitutes a large percentage of the total cost.

The marked success of the well-managed foreign mills in Shanghai and the extent to which they have increased their productive capacity in the past few years are ample proof of the fact that China offers a splendid field for the development of cotton manufacturing. The large earnings of these mills in recent years (some mills averaging dividends of 25 per cent for the past eight years) will make it easy to procure ample capital, and it is the consensus among those who are engaged in the industry that the time will come in the near future when China will manufacture within its own borders the greater part of the coarser yarns and cloth consumed by its vast population.

HAND-LOOM WEAVING IN CHINA.

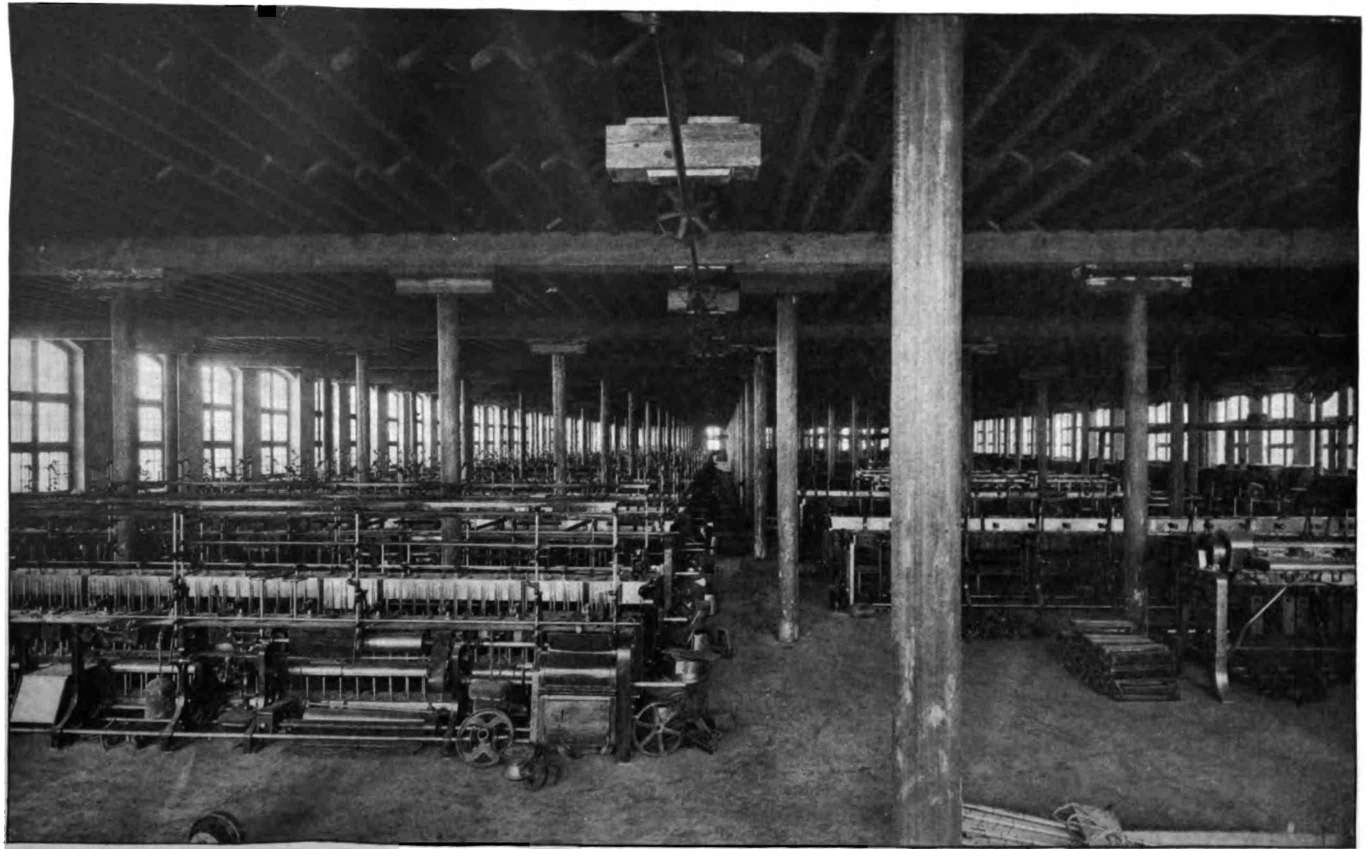
The use of hand looms is far more extensive in China than in any other country in the world. Statistics do not show the number in operation or the quantity of cloth that they produce, but a fairly clear indication of their importance is afforded by the enormous consumption of yarn, all of which is used on hand looms.

In 1918 the imports of piece goods and all other cotton manufactures, exclusive of yarn and thread, amounted in value to $114,298,544. It is safe to assume that the production of the hand looms exceeds in value and quantity the imported piece goods.



Courtesy of "Asia."

FIG. 16.—YU YUAN TEXTILE CO., TIENTSIN.



Courtesy of "Asia."

FIG. 17.—CARDING ROOM, YU YUAN CO. MILL, TIENTSIN.

Thus China is, to a considerable extent, independent of foreign piece goods. Whenever the price of the latter rises, there is an increase of hand-loom weaving throughout the country to supply the demands of the people, whose buying power is limited and a large number of whom are quite contented to use the native cloth for their clothing.

Hand looms are scattered throughout China, and thousands of them are to be found in the homes of the farmers, where they are operated when the crops are gathered or during the idle days in winter. The principal centers are in the Yangtze Valley around Shanghai; Tientsin, in the north; Hankow, Kiukiang, Shasi, and other districts in Hupeh; Honan, Shensi, and Szechwan Provinces in the interior of the country; and Canton, in the south. By far the largest production is from individual looms in the homes of the people, but there are also many establishments containing 50 to 300 hand looms that are owned and operated by Chinese merchants or men of means. More than 40 of these hand-loom mills are located in Shanghai, in which more than 3,000 looms are operated.

The hand-loom industry is so firmly established and so widespread in China that it is doubtful whether it will be seriously affected, for some time to come, by the competition of foreign cotton goods. The cloth that is woven on these looms is extremely popular among the natives, and although that sold in the market is often as expensive as similar foreign goods, it must be remembered that a large proportion of it is made in the homes of the people for their own use; and as long as they can buy raw cotton and spin it into yarn or buy foreign yarn at low prices for weaving into cloth in seasons when they are not occupied in the fields, they will probably find this a more economical method of providing themselves with clothing than to buy foreign goods.

An interesting reason for the survival of the hand loom was given by a prominent Chinese who has been engaged in the cotton-goods trade for many years. He stated that in Szechwan, a Province that buys large quantities of yarn for hand-loom weaving, and in other parts of the country, the better class of natives do everything possible to encourage the industry and discourage the purchase of foreign cloth, because the hand-loom weaving establishments give employment to many people at wages ranging from $8 to $9 Mex.[1] per month, whereas their earnings as coolies and on the farms seldom reach more than $1 to $2 Mex. per month. If the hand-loom industry should cease because the people adopted foreign cloth, thousands of operatives would be thrown out of employment, and would have far less money to spend in trade.

An additional factor in the continuance of hand-loom weaving is the spirit of something akin to patriotism, through which the natives are urged to buy cloth that is made in the country, which is often put up under attractive names, such as "patriotic cloth," in order to appeal to them on the ground of supporting a home industry.

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[1] See footnote on p. 124.

SUGGESTIONS TO AMERICAN MANUFACTURERS AND MERCHANTS.

By Commercial Attaché Julean Arnold.

INTRODUCTION.

Although the American manufacturer or merchant may feel that he has to-day all the trade he can well handle, he could insure himself against future depressions in the home market by giving a little time and attention now to effecting connections abroad, and few if any fields offer greater potentialities than China. There are manufacturers and merchants in the United States, who, although making satisfactory profits, might be able to secure even better returns with good connections abroad, particularly in China. There are some whose products find their way to the China market but in a manner that leaves the greater part of the profit to others. Likewise some are purchasing materials which originated in China but which pass through so many hands before reaching them that they are costing them much more than good business organization should permit. Some, moreover, are missing entirely chances to sell or purchase articles that are, or could be, a feature in China's trade in a way advantageous to both themselves and the Chinese. A study of the material presented in this handbook should indicate to the American mercantile interests the possibilities of China as a field of opportunity for American trade.

After having consulted this handbook for such material as may be of interest along any distinct line of trade, the American manufacturer or merchant, in the event that he has not yet effected satisfactory connections in China, should address the Far Eastern Division of the Bureau of Foreign and Domestic Commerce at Washington, or the nearest district office of the Bureau, soliciting all available material at its command and suggestions as to the best method of making further investigations. The American consular service in China has developed remarkably during the past 10 years as an agency for the advancement of American trade. American manufacturers and merchants who have not already done so should get acquainted with this very effective medium of assistance. After having become fairly well convinced through this preliminary investigation that China offers a field of opportunity for his line of business, the manufacturer or merchant can (1) send his representative to China to make further investigations, with authority to establish a branch or agency or to effect connections otherwise; or (2) through correspondence he can secure an agent, representative, or direct buying or selling connections.

PROBLEMS INVOLVED IN SENDING OF REPRESENTATIVE.

Should he (singly or in combination with other manufacturers) send a representative to China, he should send one of his high-class men, a man whom he finds he can not easily spare; in fact, the nearer he comes to sending the best and biggest man in his establishment, the nearer will he come, ordinarily, to getting big results in his China venture. Sending a cheap man is the most expensive thing he can do. The initial steps in a new field are the most important, as they determine the policy for the future. A big man will plan wisely and lay a good foundation, whereas a poor man can scarcely be expected to do otherwise than to blunder where initiative and foresight are vital factors in the solution of a problem. Furthermore, a big man will meet big men and be able to profit by their suggestions and assistance, whereas a small man meets his kind and is naturally influenced by them. It should be remembered that among strangers one's organization will be judged by the representative it sends among them. Scores of American manufacturers and merchants have failed to realize on big possibilities in their lines in China because the men who could be most easily spared at home were sent to China to lay the foundations for their future operations or activities there. If one concern is unable to send its own man, it might advantageously join with several other firms in allied lines and send a joint representative. This system has much to commend it but, unfortunately, has been little resorted to. Since the passage of the Webb Law permitting combinations for foreign trade, manufacturers should take advantage of the possibilities of joint representation. The decision having been made as to the character of the representative to be sent to China, this individual should be furnished with a small working library of literature helpful to him in his new field, and he should be instructed to give the long hours on the ocean voyage to familiarizing himself with it, so that when he arrives in China he will not find it necessary to waste his and other people's time and, incidentally, create a bad impression and thereby handicap himself, by displaying ignorance on matters concerning which all who could be of service to him have a right to expect him to know something. It is recommended that, before sailing from the United States, this representative call at the Bureau of Foreign and Domestic Commerce, Washington,—or, if this is impracticable, at its nearest district office—and obtain there the information and assistance that the Bureau has to offer.

Many times an American manufacturer has gone to a consular officer in China and asked questions which that consular officer could rightfully consider unnecessary, and often the consular officer finds his time taken up teaching some one the A B C of contact with China instead of devoting an equal amount of time to serving the person in a more advanced way. The inquirer is the loser and not the consular officer, for the latter is in duty bound, within his limitations, to serve all Americans to the extent of their ability to be served. The same remarks apply in the case of bankers and business men in China who might be of service to the newcomer, except that they may not feel themselves obligated to give as much time to such a person as a consular officer may devote. Our government service in China can be of much assistance to American business men, and when the American officials find such men to be of good caliber and thoroughly representative they are particularly desirous to be of service, not only in furnishing information but also in seeing that the business men are introduced to persons who may be of assistance to them.

The American representative should bring with him proper letters and documentary evidence of the standing of his principals, as consular officers and others in China have not the facilities that are available in the United States for checking up a man or his oral representations. Americans coming to China must bear in mind that scores of adventurers have preceded them and that they help to protect themselves and make more easy the detection of adventurers when they bring with them their credentials. They should not take it for granted that because they are known by everybody in commercial circles at home, everybody (or anybody, in fact) knows them on the other side of the earth. Furthermore, they should not feel offended if one of our Government representatives in China asks for their credentials. If they are sensitive in this matter, they might use a little diplomacy and save their own feelings by taking the initiative and presenting their credentials.

When he comes to China, the American on a tour of investigation should not content himself with visiting Shanghai and possibly Hongkong, which seem to be the limits of many such visits. Shanghai and Hongkong are not China, although Shanghai is the commercial metropolis of China. Peking, Tientsin, Hankow, and Canton should not be excluded from the itinerary of the American seeking to understand the potentialities of China for his purposes. Moreover, several good trips to Chinese cities in the interior should be included, the particular ones to be chosen depending on the lines of business in which the representative is engaged.

American representatives also make the mistake of failing to seek interviews with Chinese business men. Foreigners (non-Chinese) in China do not know all there is to know about China and the Chinese people; in fact, but few, other than the foreign missionaries, have taken the trouble to learn the language of the people. A very effective way of learning to know something about a people and a country is by associating with some of the representative natives of that country. Americans must, however, bear in mind when meeting Chinese that the latter do their business over the teacup rather than over the telephone, and thus good manners and patience are essential virtues. Americans coming to China desirous of learning to know something about the country and the people should not overlook the advantages of meeting some of our missionaries, especially when traveling in the interior. These missionaries, as a class, know China and the Chinese people better than do the mercantile interests as a class. There are nearly 6,000 Americans in China, and probably more than half this number is made up of missionaries. The American missionaries are generally college men and women, and their organizations are probably spending more in the furtherance of their work in China than American merchants are taking out of the country in profits on trade. Their work is appreciated by the Chinese, and they have a close personal contact with the people of the country which affords opportunities to know them well.

No representative of an American manufacturing or business concern coming to China for investigation purposes and for effecting connections should plan to remain less than two months. He should, ordinarily, arrive in the autumn, so far as climatic conditions are concerned. He should not allow himself to be deterred from coming to China because of rumors or reports of internal disturbances or plagues, pestilence, etc. Twenty thousand or more Westerners reside in China continuously without concern as to these reports, which are from time to time spread broadcast. Americans have been known to have got as far as Japan and turned back from there because of reports of troubles in China, during the whole period of which foreigners were continuing in the even tenor of their ways throughout the sections of the country in which they have their residences and work.

The primary question that confronts the American who comes to China to consider establishing business relations with that country has to do, of course, with the best method of effecting that consummation, assuming that he has concluded that his line lends itself to development in trade with China.

METHODS OF ENTERING THE MARKET.

He will find that China's foreign trade is in the hands of peoples other than Chinese, except in a comparatively few instances. Foreigners had to come to China to get China's wares and to exchange their products in the first instance, and they continue to do so. Thus there is as yet but little that might be defined as direct trade between Chinese in China and foreigners abroad. Gradually the Chinese are developing import and export concerns, but it will be years before these become substantial factors in the trade. The American is, therefore, confronted with the question as to whether he shall (1) establish his own house in China, (2) affiliate with a house already established, (3) leave his business in the hands of an agent, (4) employ a traveling salesman, (5) deal through a home commission or forwarding house, or (6) do his business directly with dealers in China on an open-market basis. These methods we may consider in the order as given:

ESTABLISHMENT OF AN INDIVIDUAL PLANT IN CHINA.

Undoubtedly the most effective and most satisfactory way to get results is by the establishment of an individual plant in China, provided the prospects of the trade warrant. It must, however, be borne in mind that the initial outlay in the building up of an organization will be comparatively great. The essentials for the opening of an independent office in China would be as follows:

	Taels per month.	Taels per year.
Rent for quarters	200	2,400
Light, heat, water, janitor service	40	500
Comprador and Chinese staff	150	1,800
Two native salesmen	100	1,200
One office assistant, Eurasian, for cables and accounts	125	1,500
One stenographer	150	1,800
Local manager or agent	400	4,800
Total		14,000

Furnishings are cheap in China. The value of the tael in terms of gold has ranged, during the past few years, from $0.65 to $1.35.

The comprador guarantees accounts and makes advances up to a limited sum. He ordinarily receives, in addition to his compensation, one-half per cent commission on all business done, based on c. i. f. value of goods sold. Where the turnover is large he receives only one-fourth per cent commission. This is fixed by agreement. He pays, out of his salary, his Chinese staff. As business develops, it will be necessary to add the rent of a warehouse and two warehouse attendants—a total of about 100 taels per month. The figures given above are on a liberal scale. One could open an office in China on several thousand taels per year less with a smaller office and equipment.

It must be remembered that foreign trade in China is done on the basis of large turnovers; the net profits on these range in normal times on staple lines from 2½ to 10 per cent, but since the outbreak of the war they have ranged from 5 to 25 per cent and in many instances far more. Profits on miscellaneous articles and products vary considerably by reason of variations in market conditions in China, but 10 per cent would seem to be a fair basis of estimate of net profits.

Having established an office in China under a man found competent to manage and handle it, the manufacturer or merchant in America should not expect to run that office from home any longer than is absolutely necessary to get it properly organized. American business in China has suffered because it is run too much from New York and Chicago and not enough from Shanghai and Canton.

Get a good man on the job in China and then trust his good judgment, and better and bigger results will be obtained, provided you have the right man—and you should have no other. As the business grows add young Americans, preferably college graduates, and make the salaries so attractive that they will not easily succumb to homesickness during the first few years of their residence in China. Send out good men, pay them well, take an interest in their welfare while they are in China, and give them opportunities to expand in their work.

Americans at higher salaries are, generally speaking, worth more to an American firm than others for positions of responsibility. Americans will stay out in China if proper, businesslike inducements are made. There are hundreds of young Americans in American business houses in China at present, and they are content and apparently there to stay. Every American firm in China should arrange to give its American employees opportunities for the study of the Chinese language, as this will prove an invaluable asset to their work and to the welfare of the American firm. Nothing tends to link a man to a country in a more solid way than a knowledge of the language of the people of that country. The American Chamber of Commerce of China, at Shanghai, is arranging for special class work in Chinese for Americans in mercantile concerns. The American manufacturer or merchant opening up in China should do so with the idea of making the institution a permanent one, and when men are sent out from the United States to join this firm, they should understand that they come to a permanent position with opportunities for advancement in the field. It is found that after an American has spent four or five years in China he generally prefers living in China to living elsewhere.

ASSOCIATION WITH A FIRM ALREADY IN THE FIELD.

An effective way of getting established in China is by association with a firm already in the field in other and, if possible, allied lines, by the addition of a department to this concern under the management of the representative of the new concern. This gives the new concern the benefit of the experience and financial, shipping, and marketing facilities of the established firm under some mutually satisfactory arrangement. A firm with branches or good agencies throughout the leading ports of China might be found of particular advantage in certain lines. Care should be taken, however, in the choice of the firm with which these affiliations are to be made, and, other things being equal, American firms should be given preference, for obvious reasons.

GIVING THE BUSINESS INTO THE HANDS OF AN AGENT.

It may be found desirable to commit the business to the hands of an established firm on an agency basis. Care should be exercised here, as instances have been known in which firms accepted agencies with the object of keeping the manufacturer out of the field as an active competitor in lines already represented by the firm seeking the agency. Here, again, preference should, under ordinary circumstances, be given to American houses.

Agency rights should not be given to concerns already overloaded with business and not in a position to give the manufacturer's interest the attention it deserves.

Having, however, decided upon an agent for the handling of his business, the manufacturer should assume a liberal attitude toward his agent, and realize that he can not expect to do business in China without spending money in advertising and propaganda work; in other words, he should not expect to have his business done there without expenditures not wholly dissimilar from those that he finds necessary at home. In making allotments for advertising purposes, he should be careful to secure copies of the advertisements, to make sure that the money has been expended as planned. He should investigate the advertising mediums used, so as to ascertain whether they serve his purposes. Sometimes foreign concerns use the money of American manufacturers to help support newspapers and journals carrying foreign propaganda and unfriendly to American interests.

Care should be exercised not to give the firm in question agency rights to territory that it is not prepared to work or that may be worked more advantageously by dividing the agency rights among a number of firms. Cases have been known in which agency rights were given to firms in Shanghai to cover territory as far west as India, and the Shanghai firms had no offices or effective connections west of Hongkong; similarly, agency rights to China have been given to Japanese firms in Japan when the goods could have been more effectively marketed in China through American firms located in China.

Explicit arrangements should be made with the agent to prevent the manufacturer's goods from being placed on the market at exorbitant profits to the agent, with consequent restriction of the market for these products among the trade. This is a very important matter.

Representatives of the American manufacturers should visit the territory occasionally to note the development in the trade as handled through their agents or should obtain such information from travelers for other allied lines.

If American concerns are desirous of securing agency or representative connections by correspondence, they may, by addressing United States consuls in China or the American Chamber of Commerce of China, at Shanghai, obtain the names and addresses of firms able to represent them.

TRAVELING SALESMEN.

In connection with agencies in the territory for the handling of his business, the American manufacturer or merchant might advantageously send his traveling salesman to cover the territory from time to time, working with his agents. If he has not his own establishment in China or has no agent, he may accomplish more than those operating entirely from the United States by intrusting the business to a traveling salesman, who may carry his lines exclusively, if the trade will warrant, or failing in this, by combining with several manufacturers in allied or even in similar lines to retain one salesman for the group. Considerable latitude should be allowed this salesman, as he will be far from headquarters and communication will be expensive or will require much time[1].

DEALING THROUGH A COMMISSION OR FORWARDING HOUSE IN AMERICA.

The manufacturer or merchant who intrusts his trade relations with China to a commission or forwarding house in America finds very often, if this concern does a considerable business with China, that it is in a better position to attend to this business in its varying details (with more satisfaction to the trade in China) than is possible with the manufacturer's limited facilities. Thus, in the case of the American firm that does not create a special foreign-trade department capable of attending to the details of its foreign business, that business will probably fare better if handled through a commission or forwarding house than if left to a domestic organization unfamiliar with conditions. The domestic organization is likely to send letters out under domestic postal rates written in a purely domestic tone, to fail in an understanding of the packing requirements of the foreign market, to blunder in the banking and financing arrangements, and to fail to give the requisite attention to shipping conditions.

Care should be exercised in the selection of a forwarding agent, if the domestic organization finds it necessary to call upon the services of a shipping and forwarding agent to attend to the details of its foreign business. Some of the Chinese concerns have complained bitterly of the treatment accorded them by American forwarding and shipping agents who have charged excessive prices for such services as packing, customs clearance, transshipping, etc., and who have not always packed economically or carefully. In fact, it appears that some of the forwarding agents have tried to make as much money as possible out of the individual orders, with no consideration whatever for either the American manufacturers or the consignee in China.

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[1] Travelers to China should be sure to acquaint themselves with the baggage regulations of the United States Railroad Administration. When purchasing tickets for their overland journey in the United States they must show the ticket agent a signed order covering their steamship transportation across the Pacific in order to obtain the trans-Pacific allowance of 350 pounds on each first-class ticket. Ignorance of this requirement recently caused one traveler to incur a charge of more than $70 for excess baggage.

DIRECT TRADE WITH DEALERS IN CHINA.

A considerable part of the American trade with China will probably continue as direct trade between dealers in China and American manufacturers, importers, and exporters in the United States, unsatisfactory as this may be in certain of its phases. The only way this trade can be successful is by the development of a special department in the home concern to handle it, so that the details of packing, shipping, banking, and correspondence will be given the attention that is so indispensable in this case. Some American manufacturers and dealers are making a signal success of this trade by the intelligent attention bestowed upon it. As Chinese develop the capacity and facilities for carrying on direct trade, the opportunities in direct connections with dealers and importers in China will increase. Home concerns doing their business in this way must furnish dealers in China with catalogues and other literature describing their goods. This literature must be in either English or Chinese, preferably the latter, but not in Spanish, as many new to the field of foreign trade seem to think. It must be borne in mind that the China market is no place for the dumping of inferior products not up to samples. Orders should be treated as domestic only in the sense of making efforts to fill them so as to give satisfaction and win "repeat" orders. In China competition is international in character, so that no American manufacturer need feel that his product has a monopoly claim on the market. Buyers in China must be treated with consideration as regards damage resulting from poor or unintelligent packing and also with respect to the granting of credit facilities of a reasonable nature. Orders must be filled in obedience to instructions, and dealers should not be cut off simply because there happens to be a rather unusual demand in the home market for a certain article that has been furnished to them regularly in the past and that they wish to continue using in the future. Trade by correspondence may be successful in certain lines, but probably only to a limited degree, even in these lines. Personal contact means much and should be utilized wherever possible.

American manufacturers and exporters should bear in mind that the United States maintains a domestic post office at Shanghai, through which parcels up to 50 pounds in weight may be shipped at domestic rates (see p. 112).

LINES OFFERING OPPORTUNITIES TO AMERICANS.

Some of the lines that offer opportunities for American export trade to China are:

Machinery.—Machinery and equipment for industrial plants, as also building materials, offer particularly bright prospects for American manufacturers.

Metals.—Steel sheets and plates; steel bars and angles; nails; tin plates; lead; tubes, water, gas, and boiler; galvanized sheets; new wire; wire shorts.

Soap-making materials.—Stearine; rosin; caustic soda; silicate of soda; borax.

Chemicals for match making.—Chlorate of potash; bichromate of potash; red and yellow phosphorus; glue, resin.

For paper making.—Soda ash; resin.

Glass.—Window; mirrors; plate.

Tanning materials.—Cutch; quebracho; oak extract; hemlock extract; oak tan bark.

Leather.—Sole; soft.

Hardware.—Including builders' hardware.

Miscellaneous.—Iron bedsteads; clocks and watches; dyes and paints; electrical fittings and machinery; enameled ware; dried herring: dried and canned fruits; condensed milks; gasoline and kerosene; hosiery, handkerchiefs, and towels; lamps and lampware; knitting machinery; medicines; needles; lubricating oils; news paper; railway materials; safes and scales; shoes, hats, caps, men's garters; soap; provisions (canned); cigarettes; tools; motor cars and marine motors; paraffin wax; toilet soaps and articles; etc.

For information concerning the opportunities in the cotton-goods trade in China, representing the greatest of China's imports, the reader is referred to the chapter beginning on page 329.

For the possibilities in the export trade from China, see page 261.

DESIRABILITY OF COOPERATION WITH CHINESE.

Americans should remember that they are in a special position of advantage in their trade relations with China by reason of the very friendly attitude of the Chinese people toward Americans and things American.

Much has been written about American-Japanese cooperation in the trade of China, and little has been said about American-Chinese cooperation. The latter can be made many times more effective than the former. Few, indeed, would there be who would suggest American-Chinese cooperation in trade in Japan. If there is to be international cooperation in China, let that cooperation be of the most natural character, a cooperation between American merchants and those of the country in which they seek to do business. The Chinese welcome such cooperation; in fact, a few years ago several million dollars in capital were pledged by Chinese for a joint Chinese-American bank, which has subsequently been organized, and another equally large sum for a joint Chinese-American steamship company. No people would be as welcome to the Chinese in cooperative enterprise as Americans, and yet Americans seem to be the last to take advantage of this opportunity. There are numerous industrial-development opportunities of a very inviting character, which offer splendid inducements to American capital in conjunction with Chinese participation and under arrangements that would permit of majority American stock and control. The opportunities in manufacturing enterprises are particularly inviting, as China offers wonderful stores of raw materials, an abundance of cheap labor, and a great consuming market. China cotton mills are declaring 20 and 25 per cent dividends.

METHODS OF STRENGTHENING AMERICAN POSITION.

In order to strengthen America's position in the China trade, which is probably richer in potentialities than that of any other nation on the face of the earth, the following courses of action are desirable:

(1) Encouragement should be given to American loans to China and to the sale of Chinese securities in the American market.

(2) American shipping facilities should be provided sufficient to handle the American trade on the Pacific and on the Yangtze River.

(3) American banking facilities should be developed in China capable of quoting dollar exchange and of aiding commercial and industrial enterprise in a large way.

(4) Federal incorporation should be provided for American firms wishing to operate in China, requiring that at least 51 per cent of capital stock and a majority of the board of directors in such companies be American.

(5) Joint Chinese-American enterprise in China should be encouraged.

(6) A good American news service should be established in China, with effective connections with the Chinese native press.

(7) American capital should be encouraged to participate in a large way in development possibilities in China.

(8) Facilities should be created in China for the training of young American business men in the Chinese language.

(9) Chinese students should be encouraged to enter American colleges in larger numbers, and be accorded opportunities of supplementary training in industrial and engineering plants.

(10) American commercial commissions of selected men should visit and study commercial conditions in China, and Chinese commissions of a similar character should visit the United States from time to time.

(11) The study of Chinese geography, history, and commerce should be introduced into the high schools of the United States.

(12) Departments of oriental languages and literature should be developed in a number of American universities and exchange professorships arranged between China and the United States.

(13) The American people should be encouraged to visit China in larger numbers.

(14) The men selected to constitute the American legation guard at Peking and the American expeditionary forces at Tientsin should be selected from among as many as possible of those who express a desire to train for business and other relations in China after their term of service with the Government shall have expired; and special courses of study should be arranged for them while at Peking and Tientsin that will permit them to give some of their leisure time to the study of the Chinese language.

(15) American student interpreters trained in Peking for the consular service in China should be accorded opportunities for supplementary training of a practical commercial nature in the United States after four years in China, so that they may thereafter be of greater value in the development of American trade in China than would be possible otherwise.

(16) The United States Government should purchase property and construct suitable buildings for American consulates in the cities in China at which American consular officers are stationed.

(17) Manila should be made a free port, so as to permit its greater development as a distributing center for the whole of the Orient.

(18) American firms in the United States and American chambers of commerce interested in American trade opportunities in China should become nonresident members of the American Chamber of

Commerce of China, Shanghai, and should aid in the American trade extension work of this chamber.

(19) A press service should be established in the United States for the dissemination of China news among the people of the United States, designed to educate the American people to a realization of the importance of their position as a Pacific Power and their responsibilities and opportunities in connection therewith.

(20) Adequate Pacific cable service at reasonable rates between the west coast of America and China is much needed. There should also be a good wireless service connecting China and the United States, both for business purposes and to assist in an effective news service between the two countries.

PERTINENT POINTS FOR AMERICANS SEEKING TRADE WITH CHINA.

By Commercial Attaché Julean Arnold.

1. The *population of China* is seven times that of South America and nearly equivalent to that of all Europe. Two-thirds of China's population is concentrated in one-third of its area, along seacoasts and waterways. More than 80 per cent of the people are agricultural. The population is homogeneous, peaceful, industrious, good-natured, and receptive to modern industrialism. It possesses the potentialities, industrially and commercially, of the more advanced nations of to-day.

2. In *area* China is one-third larger than the United States. Its northernmost point in Manchuria corresponds in latitude with the southern end of Hudson bay, and its southernmost point with Porto Rico. East and west it extends about 3,000 miles. Peking is 36 hours by rail from Shanghai and four days by rail from Yokohama.

3. Modern *transportation* facilities are a crying need in present-day China, which has but 6,500 miles of railways as compared to 265,000 miles in the United States. One-half of China's population is without wheeled vehicles, and the country has the largest boating population in the world. Generally, railways are built and equipped in China by those who furnish the capital.

4. China's *foreign debt* is inconsiderable compared with its enormous wealth in natural resources. It has always met its foreign obligations. Foreign interests have always been indemnified for losses incurred during local disturbances. Its marvelous wealth of natural resources offers big *inducements for American investment.* The Chinese people are particularly friendly to Americans and things American.

5. China's *foreign trade* has increased five-fold during the past 30 years and is capable of marvelous expansion. The principal exports, in order of their customs valuation, are silk, beans, tea, vegetable oils, skins and hides, minerals, raw cotton, sheep's wool, eggs and egg products, and bristles. The principal imports are cotton yarn and cotton goods, metals, machinery and railway materials, kerosene, sugar, marine products, dyes, woolen goods, tobacco, leather, matches, lumber, hardware, motors, and notions. Sixty per cent of China's imports enter through Shanghai.

6. The total *collections of the Chinese Maritime Customs* for the year 1918 amounted to more than $43,000,000 gold, including the import and export tariffs. China's total foreign trade for 1918 was more than $1,200,000,000.

7. China's *customs tariff* is fixed by treaties with foreign countries and can not be altered without the concurrence of the treaty powers. It provides in principle for a uniform 5 per cent import and export ad valorem duty, with an additional 2½ per cent to and from non-treaty ports.

8. There are 48 *treaty ports* in China, where foreigners are privileged to reside for business purposes under the jurisdiction and protection of the law courts of their respective nationalities. The principal treaty ports, in the order of their importance, are Shanghai, Tientsin, Hankow, and Canton. Americans seeking extensive business relations in China should have representation in these four treaty ports, since they are the centers of *foreign trade activity.*

9. *American manufacturers* not having their own representatives in China are strongly advised under ordinary circumstances to intrust their interests to *American firms* with organizations in the field. The American consular officers in China and the American Chamber of Commerce of China, Shanghai, will furnish lists of American firms upon request.

10. American manufacturers should *register* their *trade-marks* both in China and Japan for goods seeking markets in China. Unless provision is made for the effective protection of trade-marks, there is a strong likelihood that cheap imitations under the trade-marks of the superior goods will crowd the superior goods out of the market. Picture trade-marks should be used for goods seeking a market in China.

11. The great *Yangtze Valley* has a population estimated at 200,000,000. Shanghai is at the gateway to this valley, and Hankow is one of its great collecting and distributing centers.

12. Shanghai is the center of the *American business population* of China, with 2,000 Americans and more than 100 American firms located there. The largest single business organization in the whole of China is American. American interests in China are under the protection and jurisdiction of American consulates and courts functioning in China.

13. During 1917 *the United States had the largest trade of any nation with Shanghai,* the leading commercial city of the Orient. It took more exports from Shanghai than any other two nations combined.

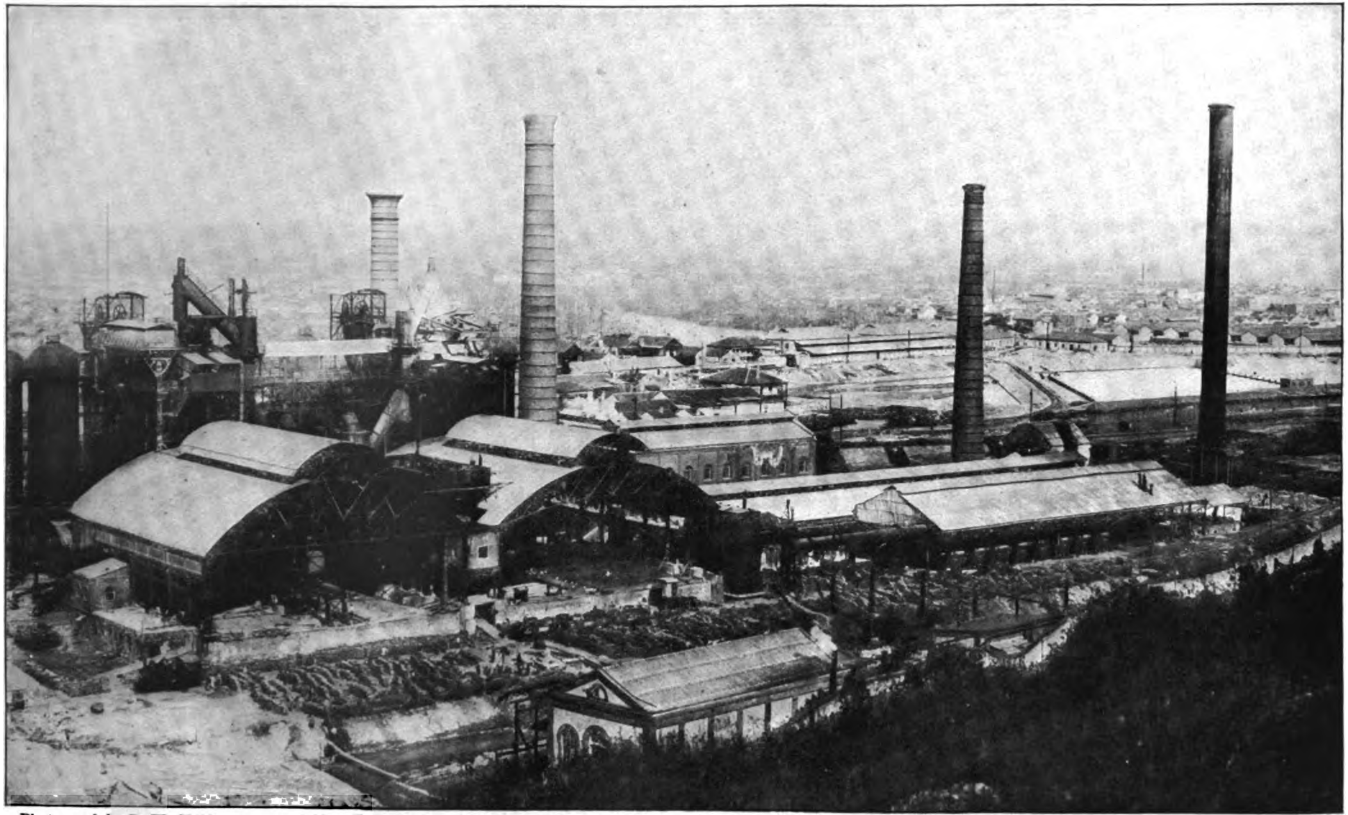
14. The United States spends about $12,000,000 a year in China on *missionary and philanthropic work,* far more than the sum spent by any other nation and probably more than that spent by all others combined.

15. There is a city in South China, in Kwangtung Province, where the *San Francisco daily newspapers are sold* on the streets.

16. There are more than 6,000 *American residents in China,* over 50 per cent of whom constitute the American missionary population. About one-half of the foreign missionary activity in China is American. Missionaries are privileged to reside and own property anywhere in China. Their work is appreciated by the Chinese people and is helpful in bringing about more intelligent and more cordial relations between China and the West.

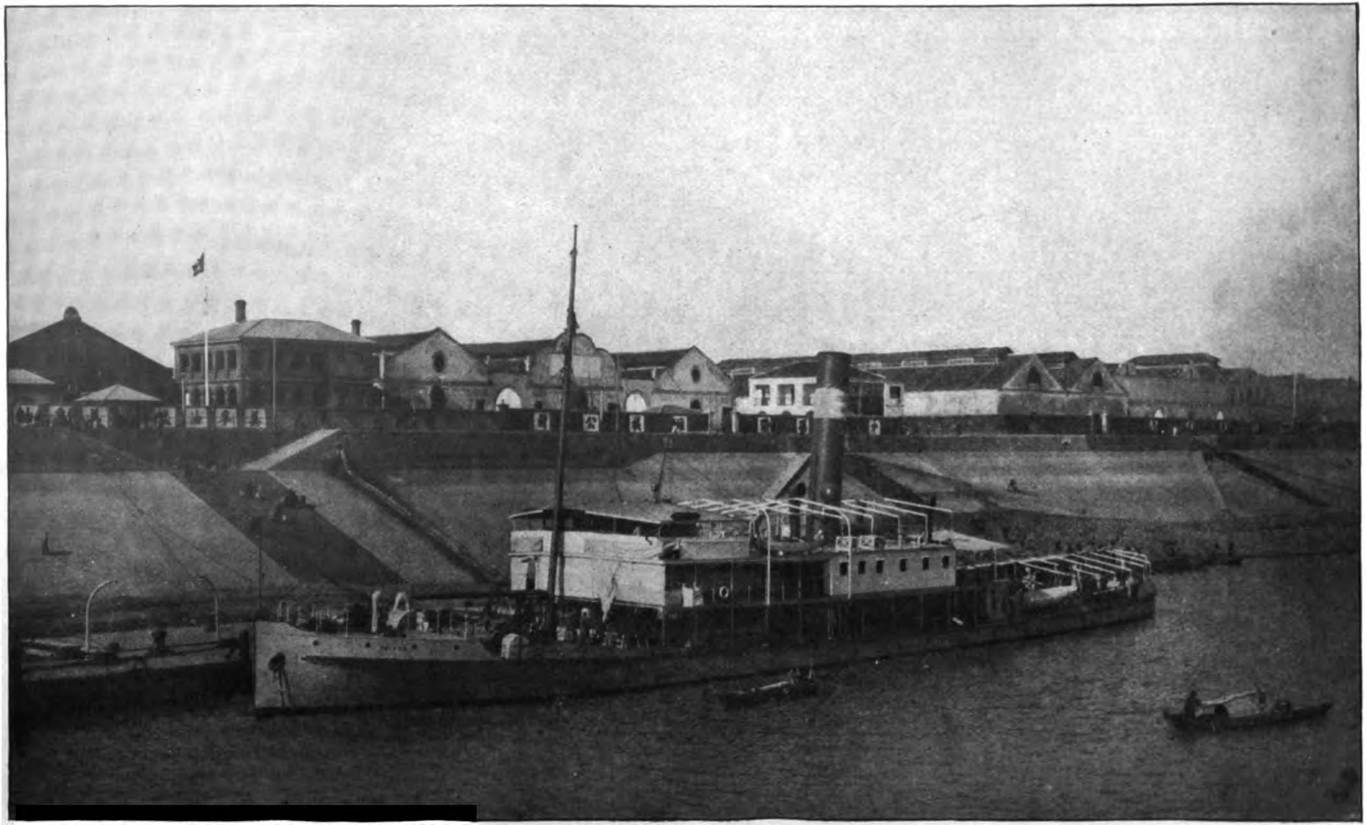
17. There are 15 American firms and 242 *Americans resident at Hankow,* 600 miles up the Yangtze River, where ocean-going steamers touch eight months of the year. There are 100 *Americans resident in Szechwan Province,* on the border of Tibet.

18. *American-owned consular establishments in China* are essential to American-trade development. Only 2 of our 16 consulates in China are Government-owned.



Photograph by R. W. Child; courtesy of "Asia."

FIG. 18.—HANYANG IRON AND STEEL WORKS, HANYANG (HANKOW).



Photograph by International Film Service; courtesy of "Asia."

FIG. 19.—PLANT AND BOAT OF AMERICAN OIL CO., HANKOW.

19. Harbin has the *largest white population* (Russian) of any city in Asia.

20. China is at the inception of a vast modern industrial development and will require railway materials, mining equipments, electrical plants, public utilities, machinery and factory equipments, and metal products in great abundance. *American ships*, *American capital*, *American organizations* are necessary to American trade expansion in China.

21. Efforts are being made to develop *Manila as an American transshipping center* in the Far East. The Philippine Islands have been self-supporting since the beginning of the American occupation.

22. *Modern hotels* are found throughout the commercial centers of the Far East, and residence and travel in China are safe and attended with comfort. Americans will find Peking to be probably the most interesting city in the world. The autumn season is the best for travel in China.

23. American and other foreign *banking interests* have their branches and agencies throughout the trade centers of the Far East.

24. All the commercial centers in the Far East have *cable connections* with the United States. In time, Shanghai is 13 hours ahead of New York.

25. Domestic *parcel-post rates* and domestic *money-order rates* obtain between the United States and Shanghai and the Philippine Islands. Parcels up to 50 pounds can be mailed to Shanghai from any place in the United States and vice versa at 12 cents gold per pound. To all other places in the Far East, international rates must be paid. In addressing consular officers, use the appelation "The American Consul."

26. Millions of acres of *arable lands lie uncultivated in Manchuria, Mongolia, and Central Asia* awaiting colonization. Transportation facilities and protection from brigand bands (now being afforded to these territories) will open them to settlement. They offer some of the richest agricultural and grazing lands in the world.

27. *Rice* is not eaten by all of China's millions. In fact, tens of millions of people in China live in sections that do not produce rice; they therefore eat cereals and other than rice products.

28. China is rich in *wild game*, particularly ducks, geese, pheasants, and snipe.

29. *Business in China* is done over the teacup rather than over the telephone.

30. The Chinese business man is rightfully entitled to the *reputation for honesty* usually accorded him. Foreign import and export houses in China generally experience no difficulties in credit transactions with the Chinese trade.

31. *Chinese will not accompany orders with letters of credit or with drafts*, in spite of the fact that they may have a credit rating "A A A." They want to know that the goods have arrived before they make payment; hence business is usually done on "indent order" or by attaching draft to shipping documents and negotiating them through the bank. American manufacturers should bear this in mind and not demand letters of credit or drafts to accompany orders from Chinese buyers.

32. *China looks to the United States* and regards the American Nation as its best friend. It welcomes American enterprise in China.

ESSENTIALS OF BUSINESS PRACTICE IN CHINA.

By Commercial Attaché Julean Arnold.

CHARACTERISTICS OF CHINESE BUSINESS MAN.

Americans are too prone to apply to China commercial formulas common to American practice without consulting the peculiar needs and long-established customs of the Chinese people.

The consensus among foreigners engaged in business in China is that the Chinese business man is a very desirable person with whom to trade, for the reason that he respects his obligations, pays his bills, and is reasonable in the adjustment of disputes. He does not quibble over legal technicalities; in fact, he is accustomed to the dictates of equity rather than those of law. Custom and practice carry much weight with him, so that it is necessary to understand and respect the customs and practices of the country when doing business with him. For instance, a Chinese is not accustomed to accompany his order with a draft or letter of credit, although his credit rating may be the best. He wants to know that the goods he ordered have arrived in China before he makes payment for them; but when they have arrived, and so soon as he takes delivery, he will make payment or other satisfactory arrangements. Sometimes—in fact, quite often—he may ask to take the shipment in installments (for instance, one-third or one-quarter each month), agreeing at the same time to pay the interest on the money used in financing the holding of the goods and all warehouse charges. Foreign firms often find it poor policy to carry stocks in China, for the reason that some Chinese merchants seem to interpret the presence of stocks in China as indicating the necessity later on of disposing of these stocks at a reduced price. However, the idea of carrying stocks is gaining in favor.

The Chinese merchant is a heavy buyer. In cotton piece goods and in metals, individual orders will often run upward of a hundred thousand dollars in value. Individual orders in sundries amounting to tens of thousands of dollars in value are not unusual. The Chinese buyer, however, wants his goods to be as ordered. If he is accustomed to a certain "chop" or trade-mark with the article of a certain quality, size, or weight packed in a certain way, he is disappointed when he receives goods different in any of these particulars—often so much so that he will refuse to give subsequent orders. The proper method of procedure in cases in which changes are made in any of the particulars enumerated is to bring these to the attention of the prospective buyer before the order is closed, so that he may know the reasons therefor and come to understand that the changes are not of such a nature as to affect adversely the price or the selling qualities of the products. The war has made it possible to introduce new "chops" or trade-marks with more ease than formerly, for the reason that necessity has obliged Chinese buyers to take many new products in place of those that the war made it impossible to obtain.

IMPORTANCE OF QUALITY.

The question of quality is an important one. China has been regarded by many as a market only for cheap, inferior goods. This is a very serious mistake. While it is true that the purchasing power of the great masses in China is very low, and there are certain goods that must be cheap in order to command any sales among them, yet it must be borne in mind that there is also a large population of those who are in better circumstances, many of whom are among the wealthy. It is only natural that when a new article or product is introduced into a community, the first consideration in connection with this product is that of price. If two or three grades are put on the market, each varying but little in general appearance from the other, the tendency in China will be to take the cheapest or cheaper grades, for they seem to offer the best inducements as regards ready sale. Later, when the products are better understood, the question of quality becomes a consideration. For instance, when California canned fruits were introduced into China, the cheaper grades alone were marketable among the Chinese trade. Since then that trade has come to appreciate the differences, and it is now taking the better grades almost exclusively. Those who are in a position to buy canned fruits are able to purchase the better grades of these products.

The Chinese buyer and consumer can be educated to an appreciation of quality, and when he understands that the difference in price is more than equalized by the difference in quality he is not slow to accept the better bargain. He must, however, be effectively convinced. Hence the expenditure of money, time, and effort may be necessary in the process of education. American manufacturers should not fail to take this into consideration and bear in mind that judicious advertising and propaganda in China are even more necessary than in the United States. It is not intended, however, to make any sweeping generalities in this direction, for, on the whole, price is a big consideration to the Chinese buyer, but not by any means the only one.

SETTLEMENT OF ACCOUNTS.

Among the Chinese trade settlements are made twice each month, monthly, three times a year on certain festival days, or at the end of the year. Most business is done on the shorter credit terms. The three festival settlement days are very important for the clearing up of outstanding accounts, and the end of the year is the great settlement period for the whole mercantile community throughout the entire country. It is a custom among Chinese to settle all outstanding accounts before the dawn of the New Year. Chinese merchants do not discount bills for cash at any certain or fixed rates. They do, however, make deductions for cash payments, but each case is considered and treated individually. Among Chinese the rates of interest on money range from 1 to 2½ per cent a month.

METHODS FOLLOWED IN PURCHASES BY CHINESE DEALERS.

The Chinese dealer handling foreign goods generally makes his purchases through resident importers, who are, for the most part, foreigners (non-Chinese). The importer opens credit at home through his bank in Shanghai. Bills are drawn on him in L/c accompanied with shipping documents. He accepts them, generally on from 90 to 180 days' sight. When goods arrive, bill of lading, invoice, and, if necessary, shipping papers are handed over to him by the bank with indorsement. Goods are stored to the order of the bank. Landing and warehouse receipts are sent to the bank. The importer pays all charges. The Chinese dealer applies to the importer for the delivery of part of the goods, giving him a native bank order for an amount proportionate to the goods taken. The native order is sent by the importer to the bank, which issues a delivery order for the goods and at the same time credits the special account of the importer for the amount of the native order. When all goods pertaining to a certain bill are delivered and all the payments credited, the bank sends out its account for the original bill in Shanghai taels and remits the face amount to the home bank. The importer has the privilege of settling the exchange whenever he likes before the due date of the bill. Bills are generally renewed by the banks in China for a reasonable period in case goods have not, during the period stipulated, been all delivered.

NATIVE BANK ORDERS.

A document that plays an important part in the trade transactions between foreigners and Chinese is the native bank order. The average Chinese business house carries accounts in 10 or more Chinese banks and pays its bills in orders on these native banks, which orders are post-dated 10 days. These orders are in Shanghai taels (see chapter on "Currency, Exchange, and Banking," p. 159, for full explanation of the tael currency). In this connection it may be mentioned that foreign firms find it necessary to carry tael accounts with their banks. If they are wise, they will carry both tael and dollar accounts—the latter for checking purposes—and make their exchange transactions from dollars to taels, and vice versa, at exchange shops, where they can secure better rates than their bank under ordinary circumstances will allow them in conversions of one unit into the other. The foreign banks charge a small fee for entering all native orders presented for credit, 20 cents on each order, presumably the expense of sending a messenger to cash the order.

BANKS OF ISSUE.

In Shanghai there are two classes of native banks (in addition to the modern Chinese bank) which issue money orders on a tael basis that are known to foreigners as "native bank orders" and to Chinese as Chwang Piao, "tickets issued by banks." The two classes of banks are Hwei Hwa, or registered banks, and Tiao T'ang, or unregistered banks. The registered bank is recognized by the native bankers' guild, the committee of which will settle all questions of dispute between banks and their clients or other parties. Hwei Hwa means, literally, "to transfer," and Tiao T'ang "to jump and strike." They are simply terms manufactured by the bankers themselves and convey no other meanings. The bank that registers itself at the guild must have a capital of at least 20,000 taels, while unregistered banks may open with any amount of capital and are not subject to the control or protection of the guild.

Notwithstanding the fact that Tiao T'ang, or unregistered banks, as compared with Hwei Hwa, or registered banks, are looked upon by the public in general as of inferior financial standing, there are a large number of the former banks which circulate their orders as freely as the latter, by reason of the fact that the Chinese mercantile community investigates the personnel represented by the bank's capital. Mere registration carries but little significance, being simply a form of organization; and there are a number of banks in Shanghai organized by men of wealth but unregistered, since they prefer to save the 1,000 taels registration fee. From the standpoint of the Chinese business community, it is the financial standing of the bank's proprietors, and not the bank's stated amount of capital, that determines the public's willingness to accept the bank's orders as negotiable paper. For instance, one of the banks enjoys the highest public confidence, though its stated capital is only 10,000 taels. It is owned by a man who is known to possess personal and real property worth several millions.

In foreign trade it is the duty of the comprador of the foreign firm to deal with banks whose proprietors are known to have a good financial standing, for in case of liquidation the personal and real property of the proprietors concerned will be realizable assets. Thus, a comprador in a leading firm or bank usually keeps a list of banks whose orders are acceptable, and it is a matter of grave importance that he should from time to time ascertain the financial condition of the various proprietors of banks with which he deals. Foreign business men or bankers take little or no trouble or responsibility in investigating the financial standing of native banks with which they deal. They rely almost entirely upon their compradors in this particular. Foreign firms often take grave risks in leaving this matter entirely in the hands of their compradors, whose bonds would not under ordinary circumstances cover deficiences in case of serious failure. It has been suggested that the foreign merchants should maintain a special bureau to study all the working conditions of native banks in Shanghai and report from time to time on their credit standings.

FORM AND NEGOTIABILITY OF BANK ORDER.

In form the native bank order is very simple. It is a piece of yellowish Chinese paper, usually of the size of 4 by 5½ inches.. There is no special printing distinguishing it from any other document. It is made out in the same manner as an ordinary Chinese invoice, containing red chop impressions and black-ink letters. Figure 20 is an illustration of such an order. A and B in squares show the chops of the bank issuing the order, but, in the case of A, only half chop impression is shown, the other half being impressed on the page of a stub book. In the space C are two Chinese characters meaning that the order is payable by transfer at date of the order and payable in cash one day after the date of the order. D gives the words "charges for collection, and the hour after which cash payment is not possible." A′, A′, in dotted lines, show the numbers of the order, and B′, B′, in dotted lines, the amount of the order; this is usually on a tael basis but may, at the request of the client, be on a dollar basis, which is unusual. C′, C′, in dotted lines, show the date of payment. The lunar calendar only is used. A merchant, when receiving a bank order, usually sends it to his own bank for collection, and D′, in dotted lines, gives the chop impression of the bank to which the order is sent for collection, showing the words "this order is only payable to ——— Bank; anyone finding it can not realize on it." In case the bank of collection sends it to another bank for collection, the bank to which it is sent usually cancels the chop impression given by the first bank for collection with dotted marks, and chops thereon its own chop, showing similar words except the difference in shop name. The half circle mark above "A" in half square means that the order has been certified by the bank of issue, the other half circle being impressed on the stub book. This circle mark is made with bamboo brush pen in red ink. A bank order so certified carries with it the responsibility of the bank of issue, the responsibility of the maker toward the payee being thereby canceled. It is, however, important that certification of bank orders shall be made by the bank or banks to which they are sent for collection, for the banks of issue will not bind themselves if the orders are sent for certification by individuals or corporations other than bankers. When others send an order for certification, the bank of issue will simply inform the bearer or holder of the order that it was issued by a bank and it will not chop the circle mark as required. This circle mark is the essential of certification, which is not obtainable by any person other than the banker. Chinese business men sometimes lose because they are ignorant of the requirements of this procedure.

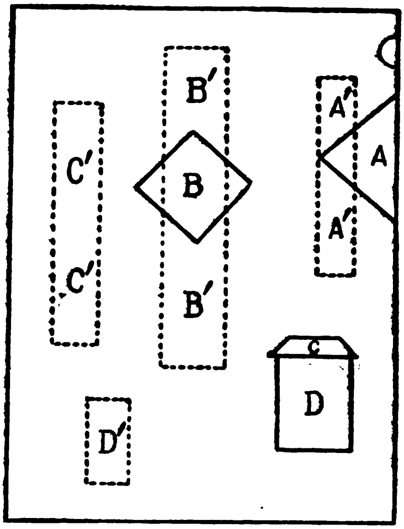


FIG. 20.—Diagram illustrating form of native bank order.

TERMS.

Among the trade in Shanghai the prevailing custom is to pay for goods obtained with a native bank order, 10 days post dated, with the date of issue and the name of payee not specified thereon. In a few exceptional cases, bank orders are issued payable at sight. In this case the word "Tsi," meaning "immediate," is usually written in bold writing on the date space of the order. The bank that issues such an order usually charges its client as if it were issued one day previously. Foreign merchants who are newcomers in Shanghai often require bank orders of this description, and Chinese merchants on this account dislike to deal with them. There are bank orders that are issued in terms of 3 or 15 days, post dated, but the prevailing custom among the business community is 10 days post dated.

RESPONSIBILITY FOR PAYMENT.

As explained, a bank order, once certified, must be paid by the bank of issue. It is the prevailing custom in the Chinese banking circles for the banks of issue to pay their own orders whether certified or otherwise, and should a bank be unable to cash its own orders, it is forced into bankruptcy at once. Thus the orders are negotiable and almost as good as cash. Chinese merchants hestitate to take foreign bank checks in payment for their merchandise, as they do not know that checks can be certified as bank orders. Another advantage in the use of the native bank order is that it can not be cashed by strangers, and except for small amounts it is usually collected by the bank to which it is sent for collection. When a bank has been notified to suspend the payment of an order already issued, it is the usual custom of a registered bank to place the funds necessary for payment in the bankers' guild. These funds will be released only after all questions of disputed ownership are settled. Some foreign firms issue checks to their compradors for merchandise purchased, and the latter change them into native bank orders 10 or 15 days post dated to the payees. This is a handsome source of profit to compradors of large firms. Some merchants, however, knowing the advantage of dealing with native banks, utilize this system of paying by native bank orders instead of by checks and effect considerable savings thereby.

However the case may be, foreign merchants in Shanghai must use native bank orders, either directly or through their compradors, since they are used exclusively by Chinese business men in payment of goods or redemption of mortgages. All the leading foreign banks accept native bank orders through the guaranty of their compradors. Many foreign business houses of old standing accept such orders without certification at all and release the goods so paid; especially is this the case when such orders are given by a known buyer of good standing. But the general practice among foreign banks is to have the order certified before its acceptance. Among business houses, acceptance is left to the compradors, who usually accept without certification if firms or merchants are of good standing.

CHINESE BANKS' CHECKS.

There is another form of money order, used to some extent by Chinese merchants, that is called Chih Tan, or check, for which the bank against which it is issued accepts responsibility limited to that of the person against whose account it is drawn. The check books of these banks are in three parts—the first, the stub; the second, the check proper; and the third, the advice for sending to the bank by drawer as advice of issue. The bank chops across parts of the second and third parts its seal or chop, so that, when the check is presented for payment it may agree with the advice already received.

The customs and practices above outlined have developed in a country in which a body of law and legal procedure are not highly developed, so that merchants have had to devise ways and means of protecting themselves in business transactions and in documents used.

IMPORT TRADE: HANDLING OF BILLS, DOCUMENTS, AND MERCHANDISE AT SHANGHAI.

BILLS OF EXCHANGE.

Shanghai banks charge one-quarter of 1 per cent commission for collecting bills.

There are no stamp charges for clean and documentary items drawn on China. If there were, their payment would depend on the arrangements between the drawer and the drawee, or on the instructions of the drawer through the bank.

In the case of protest for Shanghai, or any place in China where the United States enjoys extraterritorial rights, the protest must be lodged first at the consulate of the country of which the drawee is a citizen or subject. If the drawee is an American the protest would be lodged at the American consulate and the charge would be $3 gold plus the cost of conveyance from the bank to the consulate and back to the bank. This would apply similarly to the French, British, and Japanese.

All charges incurred by protest of a bill usually are paid by the drawee, except, of course, under special arrangements or instructions by the drawer. Very often a protest occurs through the negligence of the drawer, most of such instances being those in which goods arrive contrary to specifications, as to quantity, quality, color, or some other characteristic—in which case the drawee, if dealing with an unknown firm and unable to secure satisfactory assurance of adjustment before maturity of the bills, allows the bills to be protested.

The laws governing the protest of items are determined by nationality. For instance, in the case of a bill protested by an American firm or firms, the laws governing protest in the United States would apply.

The payment of collection and banking charges on bills drawn upon merchants in China depends upon the form of the bill, which is drawn in accordance with the arrangements between the drawer and drawee. If the drawer is to pay the collection and bank charges, that fact is noted on the bill. If the drawee pays all charges the bill will read "Plus all collection charges."

The importer generally bears all collection and banking charges, except where other arrangements are made, as mentioned in the preceding paragraph.

Supplementary payments or charges, if any, beyond the regular banking and collection charges, are paid by the importer, except where they are paid by the drawer in accordance with arrangement.

Local banks guarantee the payment of drafts only when assured of the financial standing of the importer.

CONSIGNMENT OF GOODS.

None of the Shanghai banks accept consignment of goods—that is, a consignment of goods made on agreement between the shipper and the bank prior to the shipment of the goods from point of origin. Some banks may accept consignment of goods in cases where, after the goods have been shipped, the importer has failed or has otherwise been placed in a position where the shipper, for his own protection, considers it best to take the merchandise out of the hands of the consignee. In such cases, if the bank agrees to accept the consignment, it does so entirely at the risk of the shipper. It will not assume any responsibility for out-turn of cargo, returns from it, or any charges involved in the importation of such goods. Shanghai banks usually decline to take the position of a trader, preferring to adhere strictly to banking business. Goods shipped on consignment to a bank are always turned over, by the bank, to some reliable importing house for disposal, with all charges for shipper's account.

PARCELS.

Parcels may be sent through the bank to be delivered to consignee against payment or acceptance of draft. The banks do not encourage this practice and prefer that it be not followed. However, where it is followed, there is no liability on the part of the bank. Where parcels come consigned through the bank they are usually left in the post office until a delivery order is issued against the payment of the documents, or in accordance with instructions to the drawer. The best method to follow, for handling such transactions, is to ship through the American Express Co. or to consign the parcels to reliable forwarding agents (who can be found in the important cities in China, such as Shanghai and Tientsin) and have the bills presented through the bank.

CUSTOMS ENTRY.

Consul General Sammons has cabled from Shanghai, September 25, 1919, that after October 30 cargo will not be passed by the Chinese Maritime Customs unless accompanied by invoices and other documents. The American Chamber of Commerce requests that the widest publicity be given, urging American importers to mail invoices so as to arrive with the cargo, thus keeping serious criticism from American trade methods.

Entry of all goods must be made at the customhouse within 15 days, at the most, from the date of the arrival of the vessel. Sometimes the customs authorities designate the time under 15 days, which is usually governed by the date of the vessel's clearance for another port—that is, the vessel on which the goods arrive.

In the event of the entry not being made within the time limit, the goods are put into bonded godowns at the importer's expense. The charges incurred are 5 Haikwan taels[1] for each bill of lading and storage. The storage charges vary according to the commodity and the location of the bonded godown. There may also be transfer charges for conveying the material from the wharf; these also vary with the commodity and the distance.

If the goods are placed in bond through the consignee's negligence, he should pay all charges incurred. Very often cargo arrives before the documents covering it; the consignee having no advice of the arrival of cargo, it is bonded instead of being entered at the customs—in which case the charges, if disputed by the consignee, should be for the account of the shipper. Or they can be for the consignee's account upon mutual arrangements between him and the shipper.

When the Customs bond and store the goods the charges are 5 taels per bill of lading, plus hauling charges (from wharf at which goods have arrived to bonded godown) and storage charges—the storage charges differing according to the merchandise stored and the location of the bonded godown. Hauling usually costs from 0.03 to 0.10 tael per picul of 133⅓ pounds, varying according to the commodity and the distance. Storage amounts to 0.01½ to 0.05 tael per picul for goods charged for on weight basis and 0.02 to 0.25 tael per month on goods charged for per package. For the second and succeeding month there is a slight reduction. The charges vary according to the location and class of the godown, godowns being divided into A, B, C, and D classes, according to location, construction, and fire protection.

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[1] See second paragraph of footnote on p. 124.

All charges are for the consignee's account, except in such cases as are mentioned in the second paragraph preceding this.

In case of necessity banks will store incoming goods, all charges incurred being, of course, for the account of the consignee.

USUAL RATES FOR STORAGE.

Rates of hauling to storage in cases where the bank stores goods are those prevailing for ordinary hauling and storing. The rates for hauling and coolie hire vary according to the commodity handled and the distance, and the rates for storage depend upon the commodity and whether it is in the wharf godown or in the public godown. Usual rates for storage are shown in the following table:

[N. B.—Landing accounts are issued free unless the storage is under 75 candareens, when an initial charge of that amount will be imposed for first month, with a minimum charge of 25 candareens for second and succeeding months. Renewal landing accounts, each 1 tael.]

Description.	First month.	Second and succeeding months.
	Candareens.	*Candareens.*
Acids .... case	15	15
Anchors .... each	[a] 15	....
Same, 1 ton and over .... picul	6	6
Anvils .... each	[a] 10	....
Bean cakes .... do	1½	1½
Buckets, galvanized iron .... bundle	7	5
Same, 2-dozen .... do	12	9
Buffalo horns .... package	20	20
Beams (Singapore) .... cubic foot	1½	1½
Beans .... package	2	2
Biscuits (cases) .... cubic foot	1½	1
Bleaching powder .... drum	15	12
Brass rods .... picul	6	4½
Candles:		
15 to 20 pounds .... box	1½	1¼
25 pounds .... do	2	1¾
50 to 85 pounds .... do	7	5
Cotton:		
Chinese raw—		
Large .... bale	8	8
Medium .... do	6	6
American and Bombay press-packed (large) .... cubic foot	1¾	1
American and Bombay press-packed (ordinary) .... do	1½	1
Cotton goods:		
British and continental packed; single bales .... do	1½	1
American packed; single bales .... do	1½	1
British, American, and continental packed; double bales .... do	1¾	1
British, American, and continental; cases .... do	2	1
Cement .... drum or cask	10	7
Caustic soda .... drum	15	12
Copper:		
Disks (in drums) .... picul	6	4½
Ingots, plates, or bars .... do	6	4½
Coal .... ton	7	7
Same, in bags .... bag	1	1
Same, in godown shed or matshed .... ton	10	10
Coke .... do	7	7
Same, in bags .... bag	1	1
Cartridges (special godown) .... case	25	25
Cigars .... do	25	20
Chains and shackles (new) .... picul	6	6
Chains (old) .... do	4	4
Cigarettes .... cubic foot	2	1½
Crucible (in cask) .... do	4	3
Dyes (cases) .... do	1½	1
Ebony wood .... picul	3	3
Egg yolk (cask) .... cask	20	15
Flour (50-pound bags) .... bag	1½	1
Fire bricks .... thousand	[b] 1	[b] 1
Flints .... ton	7	7
Fire clay .... cask	20	15
Furniture .... cubic foot	4	3
Gallnuts .... do	1½	1

[a] And up. [b] Taels.

Description.		First month.	Second and succeeding months.
		Candareens.	*Candareens.*
Glass:			
Plate	cubic foot	6	6
Window	case	6	5
Powder	cask	20	15
Glassware (case or cask)	cubic foot	4	3
Gunny bags	bale	75	60
Horseshoes (old)	picul	2	2
Hides, Hankow and Tientsin:			
Press-packed	bale	50	50
Native-packed	do	[a] 10	....
Hemp, Hankow and Tientsin:			
Press-packed	do	50	50
Native-packed	do	3	3
Hardware:			
In cask	cubic foot	4	3
In case	do	3	2
Horse boxes	each	[b] 1½	....
Iron:			
Angles, H. T. and channel	picul	3	3
Bars	do	6	6
Same, in bundles	do	6	6
Nail rods	bundle	1	1
Tubes, single and bundles	picul	3	3
Plates	do	3	3
Hoops	do	3	3
Old hoops	do	4	4
Sheets	bundle	7	5
Corrugated, plain, and galvanized	case	20	15
Same, in bundles	bundle	7	5
Wire cobbles (old)	picul	2	2
Pig iron	ton	20	20
Jute:			
Small	package	5	5
Large (loosely packed)	do	15	12
Press-packed	bale	50	50
Lead:			
Sheet	roll or cask	30	30
Pig	pig	1½	1½
Liquors:			
Brandies, spirits, wines, and ales (in cask)	cubic feet	3	2
Same, 2 dozen	case	7	5
Same, 1 dozen	do	4	3
Beer in bottles, 4 dozen	cask	13	10
Logs of timber	cubic feet	1½	1½
Leather and leather belting	do	3	2
Lace	case	25	25
Linoleum and oil cloth	cubic feet	4	3
Machinery, railway, and machine fittings	ton, weight or measure	[b]2	....
Matches (tin-lined cases):			
Safety	case	15	12
Sulphur	do	20	15
Malt, in tanks	tank	[b]2½	....
Needles	case	5	4
Nails	do	5	4
Nails, in cask	cask	5	3
Nickel	case	10	10
Organs	cubic feet	4	3
Oil:			
5 gallons	tin or drum	2½	2½
In cask—			
Hankow	cask	15	15
Singapore	cubic feet	2	2
Oil, kerosene	case tin	1½ 1	1½ 1
Oakum		10	7
Paper (printing and wall)	cubic feet	3	2
Peas	package	2	2
Provisions (milk, fruit, pickles, and groceries generally)	case	7	5
Pipes (water and gas)	picul	4	4
Same, over 1 ton	do	6	6
Perfumery	case	25	25
Plumbago (cask)	picul	4	3
Pitch	cask	15	15
Pianos	cubic feet	4	3
Paint:			
28-pound kegs—			
Wet	keg	2	1½
Dry	do	4	3
Kegs in cask—			
Dry	cubic feet	4	3
Wet	do	3	2

[a] And up.

[b] Taels.

Description.		First month.	Second and succeeding months.
		Candareens.	*Candareens.*
Rattans	picul	3	3
Ribbons	case	25	25
Rice	bag	2	2
Rope:			
Manila	cubic feet	3	2
Wire	do	2	2
Silk plush	do	3	2
Stores. (*See* Provisions.)			
Seaweed:			
Large bundles	bundle	6	4
Cut	box	2	2
Sandalwood	picul	4	4
Soap:			
28 pounds	box	1½	1½
56 pounds	do	3	3
Sesame seed	bag	3	3
Spelter	picul	4	4
Sheathing metal and nails	case	20	15
Scrap iron (old and new)	picul	2	2
Straw braid	bale	[a]12	....
Steel	case	4	3
Steel bars	picul	6	6
Same, in case	cubic feet	4	3
Soda ash:			
1 picul	keg or cask	3	3
2 piculs	do	6	6
3 piculs	do	9	9
4 piculs	do	12	12[a]
6 piculs	do	18	18
9 piculs	do	50	50
Crystals	cask	20	15
Sugar:			
Coast	bag	2	2
Candy	do	3	2
Formosa	basket	6	6
Home-packed	bag	4	3
Japanese	do	4	3
Tubes, gas and water	picul	3	3
Tin plates	case	2	1½
Tin (slabs)	slab	2	2
Tiles (in cask)	cask	25	20
Tea	half chest	2	2
Tea, brick (in basket)	basket	4	4
Timber	cubic feet	1½	1½
Tobacco	hogshead	[b]2	[b]1½
Thread, gold and silver	case	25	25
Teakwood	cubic feet	1	1½
Woolen goods. (*See* Cotton goods.)			
Wine in cask (French)	cask	20	15
Wire	do	12	
Wool:			
Large, press-packed	bale	50	50
Medium, press-packed	cubic feet	1½	1
Native-packed	package	5	5
Yarn, Bombay and Japanese:			
400 pounds	bale	12	9
Over 400 pounds	do	15	12
Packed in straw bags	do	9	7
Zinc:			
Slabs	picul	4	4
Sheets	cask	30	30[a]

[a] And up.

[b] Taels.

Packages with declaration of value, one-half of 1 per cent.

Merchandise not enumerated above will be charged for according to size, value, or weight of package.

Banks will attend to the insurance of cargo in warehouses, the charges being for consignee's account.

Insurance premiums for goods warehoused vary according to the location, construction, and fire protection of the godown, as well as according to the commodity.

It is customary for the consignee to pay all charges incurred in the storing of cargo in public or private godowns.

ARRIVAL OF GOODS.

In the event of goods arriving before the related documents, delivery can be obtained upon the consignee's giving the steamship company a letter of guaranty, which must be countersigned by a local bank—preferably the bank through which the related documents will be presented. On the arrival of the documents the shipping company will release the letter of guaranty in exchange for negotiable bill of lading.

If the documents obtained under letter of guaranty pass through the bank that countersigns the letter of guaranty, there is no charge, as the usual banking charge covers the transaction. Should the documents pass through a bank other than the bank countersigning the letter of guaranty, the usual charge is one-half per cent. This charge may be less, depending upon whether the consignee is the bank's client and whether the amount of his business with the bank warrants such a reduction.

No consular invoices are necessary for goods shipped to China.

NECESSARY DOCUMENTS.

The usual documents necessary in connection with shipment to China are negotiable copies of bill of lading, insurance certificate, and the shipper's invoice. For customs purposes the consignee should be provided with the original supplier's invoice and packing list. Exporting houses in the United States would not only minimize trouble but would eliminate considerable expense at the China end if, in addition to their own invoices to the consignee, they would supply a copy of the manufacturer's invoice with the packing list, as the customs authorities require the true c. i. f. cost of goods in order to assess duty. In the absence of this proof the customs will detain cargo until it is examined. Packing lists eliminate examination of cargo or serve as a check when cargo is being examined.

EXAMINATION.

Goods that have arrived in port in apparently undamaged condition can be examined by drawee only after acceptance of bills. Goods that have arrived in apparently damaged condition can be examined in the presence of licensed surveyors, appointed by the steamship agents, who appoint surveyors and time for such examination to determine the extent of damage and responsibility.

CONTROL OF MERCHANDISE.

Where bills of lading are made out "to order," the consignee can obtain the goods without presentation of bill of lading by giving the steamship company a letter of guaranty countersigned by a local bank. This letter of guaranty is returned in exchange for negotiable bill of lading.

Where bills of lading are made out to the order of the consignee, he can obtain the goods without presentation of bill of lading under a letter of guaranty.

Bills of lading so worded as to give the shipper absolute control of the merchandise would make them nonnegotiable and would not be accepted with drafts by the banks. Absolute control of the goods by the shipper can usually be obtained in the usance of the bills covering shipment. For instance, in shipments purchased in and shipped from American west-coast ports the usance should be at sight with documents on same steamer as (or faster steamer than) that on which shipment is made.

For shipments from east-coast ports bills could be drawn at 10, 20, or 30 days' sight, documents against payment. Bills would be paid before goods arrived.

Another method is to have the consignee arrange for an irrevocable credit in the United States, which can be opened for 30, 60, or 90 days, in which case the shipper collects for the value of his shipment as soon as goods leave his plant or against ocean bill of lading, according to the terms of credit arranged.

Goods can be consigned to a third party to be delivered to the importing firm on an order from the bank after bills have been paid. Banks must be so instructed. This method would involve an additional charge on the part of the third party. This is sometimes done, but is not recommended as a practice conducive to increase of business.

The usual terms in practice for most importing firms in China are bills of lading made out "To order" or "To the order of ——— (giving consignee's name)," with bills at 30, 60, and sometimes 90 days, documents against payment.

SALE OF GOODS THROUGH BANK.

In the event of goods being consigned to a Shanghai importer which for some reason or other have been left on the shipper's hands, the banks will attend to the selling of these goods. They can only do so, however, by placing the entire shipment in the hands of some reliable importing house to sell. The banks do not take any responsibility as to the returns or charges involved, all charges and expenses being for the shipper's account.

RETURN OF GOODS TO SHIPPER.

In the event of goods being returned to the shipper, it will be necessary to secure freight space to the port of origin or other destination; such goods will be released by the steamship company upon payment of all storage charges and freight prepaid to the point of destination.

Goods that have once passed through the customs have to be cleared before they can be released.

No duty is paid in the case of reexportation of foreign goods that have once passed through the customs in China.

Duty to the value of seven-eighths of the amount paid is refunded on goods that have passed through the customs and are reexported, either to the port of origin or to some other port.

DRAFTS DRAWN ON CHINA.

The customary phrase to include on drafts drawn on China in United States gold dollars or other foreign currency, in order to enable banks to remit the face amount of such bills without any deduction whatever, is "Payable with all charges."

The same phrase is applicable in order to enable banks to remit the face amount of such bills plus collection charges. Particulars of the charges are to be given the bank separately.

The customary phrase to be included in drafts drawn on China in United States gold dollars or other foreign currency, in order to enable the bank to remit the face amount of such bills plus collection charges and interest, is "Bills payable with all charges and interest at ——— per cent." Particulars of the charges and interest are to be given the collecting bank on a separate list.

Shanghai banks undertake to remit proceeds of bills in United States gold dollars without loss of exchange if the bill reads "Payable at the bank demand selling rate on America, including all charges," in which case at the date of maturity the bank would remit at the bank's demand selling rate quoted for that date, except where the drawee had previously settled exchange against this bill; in that event the rate would be the bank's demand selling rate on the date of settlement of exchange by the drawee.

It is not customary, in the case of a bill drawn on China in other than local currency, for the drawee to pay such bill by a draft purchased from another bank in China. Where this is done there is a bank commission of one-fourth per cent to pay the bank at which the bill is retired. This sometimes is one-eighth per cent, but usually the charge is one-fourth per cent. Shanghai banks do not encourage this procedure, as it very often works out to the bank's disadvantage, and local banks, knowing of importers making this a practice, would in time discourage their branches from accepting bills for this firm or firms. There are times when it is unavoidable and the banks concerned will make concessions; this is in cases where the consignee, without previous knowledge of the bank through which bills will be presented, settles exchange for the value of the shipment arriving in order to take advantage of a favorable rate of exchange. In such cases it often happens that the consignee will settle in one bank and the draft will be presented through another; and to take up exchange settled for the shipment he is forced to purchase a demand draft from one bank to pay the draft at maturity at another. In this case he pays the bank through which the draft is retired one-fourth per cent, which charge is for the drawee's account.

RATE OF EXCHANGE.

There is no provision by law in China as to the rate of exchange to be applied to bills when retired. Unless exchange has previously been settled by the drawee, the draft is retired at the rate of date of maturity of draft. Drawees are permitted to settle exchange prior to maturity date on bills and to use exchange settled to retire draft.

RATE OF INTEREST.

The rate of interest charged on all bills is 7 per cent, which interest ceases when bill is paid before maturity. This interest is not fixed by law, but by agreement and arrangement between local banks.

RETURN OF DISHONORED ITEMS.

The charges (other than protest fees) connected with the return of dishonored items are the telegraph charges and interest. In the case of charges incurred on dishonored items the equivalent in gold dollars is usually paid to the nearest bank's branch or agent.

BILLS ON CHINESE FIRMS.

There are not very many bills drawn directly on Chinese firms—that is, in comparison to the number of bills drawn on foreign firms. In the event of bills being drawn on Chinese firms for goods purchased directly from the United States or elsewhere by Chinese—that is, not through the intermediation of a local importing house—the bank will draw on the drawee in the same manner as it will on a foreign firm. Where goods are purchased through a local house by Chinese, with a request that drafts be made on them direct, drafts are sent to the local importer, who will present them to the drawee (a Chinese firm) for acceptance. After acceptance the bank usually requires the comprador of the local importer to countersign the acceptance. This gives an added protection to the bank and drawer, as many local Chinese firms have no financial rating. There are also some foreign houses that follow this method.

EXPORT-TRADE PRACTICES.

FINANCING EXPORTS FROM CHINA.

Exports to the United States are financed usually under the form of a documentary credit, which some banks do not regard as a credit at all. As a rule, the documentary credit is opened at the request of an importer who specifies the name of the bank through which the credit is to arrive, dependent upon the particular bank where the exchange is booked to cover that particular transaction. Other credits in use in the case of exports from China are confirmed bankers' credits or irrevocable credits, which call for no comment, as these credits are well known in the United States.

There is still another form of credit that is occasionally utilized, and that is a so-called "packing credit." This is a form of credit by which the importer authorizes the local banker to pay the exporter the value of the merchandise, as soon as the goods are packed and ready for shipment. Such cargo is usually hypothecated to the bank until the goods are actually shipped, when, in exchange for the shipping documents, the bank deducts the amount advanced and gives the exporter the balance in his favor. The most common usance is 90 days, but shipments are made also on 30, 60, 90, and 120 days by mutual arrangement between the buyers and the sellers. Business at sight draft is also a common occurrence, and with strong financial houses, this usance is preferred to all others on account of the great benefit in exchange between the demand rate and a rate covering interest for a specified period.

CREDIT.

The local seller draws ordinarly under a credit opened by the American importer. The credit is usually opened through a first-class New York or Boston bank, depending on the place of residence of the buyer. If the credit is in sterling it is opened through London. Bills are very often drawn on New York, payable London.

Whether dollar bills drawn on New York are more advantageous than sterling bills drawn through New York, payable London, is entirely dependent on the cross rate existing between New York and London. At present (1918) the gold dollar is as advantageous as sterling.

Prior to the war, most bills were drawn on London, while now the majority are drawn in gold dollars.

The usual method of opening a documentary credit is to approach the bank either in China or abroad, according to which side is shipping, when the applicant, having acquainted the bank with the desire to open such a credit, is handed a form to fill in and sign; in this form he states that he wishes to open a documentary credit in favor of the foreign exporter AB of such and such a place, mentions the total sum for which the credit is to be made available, and states whether one or a series of drafts is to be drawn. He also gives the particulars of the merchandise to be shipped, and agrees to effect the marine and war risk insurance on the goods.

In consideration of the banker's agreeing to make advances on the bills which AB may draw on him up to a certain specified amount, he, the importer, engages to accept and pay credit. Each bill drawn under such a credit is accompanied by a full set of shipping documents—usually invoice, bill of lading, and insurance policy—all duly hypothecated to the bank as security for the due payment of the bills; and by examining these documents of title to the goods the banker is able to see that the conditions of the credit are complied with.

The point of difference between a bank credit and a documentary credit of this description is worth noting. In the form or notice which is sent to the exporter upon the opening of a documentary credit, there is often a clause stating that the credit is not to be considered as a bank credit and does not relieve the exporters from the liability usually attached to the drawer of a bill of exchange.

USANCE.

The common usance is three months. Very often, however, 30 days' or 4 months' sight is used and the bills are negotiated direct with the bank, although the exchange is practically always settled through brokers.

SETTLING EXCHANGE.

The exchange rates are locally quoted in a daily issue by the Shanghai banks, which give the exchange rates on London, France, New York, Hongkong, Japan, and India. These rates are based on what is known as London bank wire, which is the bank's selling rate for sterling on London and means that the buyer has to give 1 tael in Shanghai for the equivalent of the sterling rate given by the bank in its London bank wire.

Telegraphic transfer exchange can also be settled forward, and in forward business, the buyer would always have to pay a little more than he would if he were buying immediate T/T. Generally speaking, there would be a difference in the rate of 1s. 16d. or 1s. 8d. for delivery up to, say, three months forward. "Demand" is a quotation for bank demand bills. "Banks 4 m/s sight" means the price for bank bills at four months' sight; that is to say, payable four months after the bill has been sighted and accepted in London, plus the three days' grace.

Documentary four months' sight is the rate at which banks will purchase bills drawn on a given place with documents attached. "New York bank payment 84⅜" means that the bank will sell a bill drawn on the United States for that amount of American gold dollars, payable on demand in exchange for 100 Shanghai taels. "Credits 4 m/s sight" and "documentary 4 m/s sight" are the bank's buying rates for bills drawn under credits and bills with documents attached, and the price in each case is given in United States gold dollars in exchange for 100 Shanghai taels. The exchange rate, briefly put, is the value of the tael in foreign currency based upon the London daily rate of the value of silver.

DOMICILE OF BILLS.

Bills drawn on the United States are customarily domiciled in New York, Chicago, San Francisco, Philadelphia, Boston, and occasionally in some other smaller cities.

MAIL TIME.

In prewar days, the mail time and frequency of sailing to the leading cities in the United States was, on an average, once a week, but now, with the disruption of the mail service, there is, on an average, a sailing only once in three weeks. The mail time to New York via Canada by the Canadian Pacific boats is usually 21 days from Shanghai, and to the Pacific coast 27 or 28 days. In connection with the present shipping situation, the banks have arbitrarily made a ruling to the effect that exporters can not receive their money against documents on shipments until 24 hours prior to the sailing date of a mail steamer by the Canadian Pacific, Pacific Mail, or Toyo Kisen Kaisha lines.

RATES.

New York rates of discount are regularly and accurately quoted in Shanghai through the medium of cables to certain Shanghai banks. Dollar bills, drafts, etc., offered to local banks are converted into local currency at the daily T/T rate received in China by cable from London or New York. Forward rates of New York discounts are regularly and daily quoted by the majority of the foreign banks in Shanghai.

DOLLAR VERSUS STERLING EXCHANGE.

Before the war sterling bills were most popular, partly because of the cross rate that existed between New York and London, but mostly because the basis of all local exchange quotations is sterling; therefore in quoting in other gold currencies a fraction of profit was usually included by the bank. At present, however, gold dollar bills are as advantageous as sterling bills. Bills on other foreign currencies are based entirely on the cross rate existing between the different countries.

[NOTE.—Persons interested in further details concerning the handling of foreign business in China are advised to consult a useful little volume entitled "Handbook of Business Training," by Chow Shi-San, published by the Commercial Press, Shanghai. For more information on the subject of foreign exchange the reader is referred to p. 184 of the present handbook, to Spalding's "Eastern Exchange, Currency, and Finance," Sir Isaac Pitman & Sons (Ltd.), London and New York, and to a little booklet by Sir Charles Addis, manager of the Hongkong & Shanghai Banking Corporation, London, published by the North China Daily News and Herald, Shanghai.]

ADVERTISING AMERICAN GOODS IN CHINA.[1]

INTRODUCTION.

The population of China is variously estimated at from 325,000,000 to 400,000,000, and competent observers have estimated the literacy of the Chinese people to be around 10 per cent. At first glance one is inclined to conclude that there is a large percentage of these 400,000,000 who can not be reached through the printed message, but experience has shown that eventually the messages sent forth in the form of advertising have reached the masses in cases where there was a potential demand and the appeal was strongly put.

China has been, and still is, an unexploited field in many lines of merchandising; and trade has followed the lines of least resistance. The most spectacular advertising campaigns have been made to the masses, and the success of the campaigns for introducing kerosene, cigarettes, and the patent medicine "Jin Tan" are striking illustrations of the efficacy of advertising of this class. In the first case, the selling campaign was connected with a real need; in the second, it was an appeal to a habit; and in the third, to the longing for health of the physically unfit.

On the other hand, these successes must not lead to the conclusion that there is no sale in China for higher-priced articles. The popular opinion in America seems to be that China is a country of slow, patient, and industrious, but always poor, people. There is a large class of buyers in China who can afford to buy anything they consider necessary to their comfort, as well as many of the luxuries of life.

In China advertising is not organized as it is in the United States, nor as it is in Japan. The difficulties that the American advertiser will meet in initiating an advertising campaign are many and annoying to the American type of business man who demands quick results; nevertheless, a start has been made toward organizing on broad and sound lines. The advertising value of the newspaper, poster, calendar, or any other medium depends entirely upon the class of commodity advertised and the class of buyers it is desired to reach, so the order in which the following mediums are discussed must not be taken as an indication of their relative values in an advertising campaign.

THE CHINESE PRESS.

There was recently celebrated in Shanghai the forty-fifth anniversary of the Shun Pao, the oldest Chinese newspaper. The main feature of the anniversary celebration was the dedication of a new building or home for the paper, which is said to be the largest and most complete newspaper office in the Orient. The new building cost about $150,000 in United States currency, was designed by an American architect, and was constructed throughout on modern American lines for newspaper publishing purposes. The Shun Pao, which easily ranks as the leading newspaper in China, has a circulation of approximately 30,000 copies daily. The daily edition averages 16 pages, and about 150 employees are required to produce it.

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[1] This chapter is a composite of articles by Trade Commissioner John A. Fowler; J. B. Powell, editor of Millard's Review, Shanghai; Commercial Attaché Julean Arnold; Vice Consul Walter A. Adams; and Student Interpreter A. Krisel.

This publication gives some idea of the status of the publishing business and advertising possibilities in the Republic of China. The press of China compares favorably with the press of America in the period of reconstruction following the Civil War. There are about 400 newspapers in continuous publication in China. The circulation of these papers averages about 3,000 copies daily. While these circulations appear small from the standpoint of American journalism, they are in truth much larger through the Chinese custom of never destroying a paper but selling it again and again after it has been read. Thus one paper may do service for many readers and really does not cease being read until it is worn out.

An agency in Shanghai has a list of about 200 newspapers published throughout China with which it has established satisfactory business connections. These newspapers have given statements of circulation, of the class of people they cater to, tentative rates (fixed rates can not be given in these days of soaring paper prices), and supply proof of publication. To-day the name of one of these publications may be the Jin Po and to-morrow it may be called the Jui, or Shun, or some other Po, but it continues under the same management so far as business dealings with the foreign advertiser are concerned, and its general business policy remains the same. It is reasonably safe to do business with these publications, according to the factors of safety recognized in China, but the widely known advertiser from America will have difficulty in establishing credit with the managers of these publications (when he finds out who they are), as the only means the Chinese manager has of learning who is reliable among the foreign firms is by experience, and some of his experiences with foreigners have been most unsatisfactory. The only means of reaching these newspapers, outside of a slow process of building up a reputation with them, is to employ a reputable agency as go-between. [A list of such agencies may be obtained from the Bureau of Foreign and Domestic Commerce or its district or cooperative offices by referring to file No. 94944.]

In addition to the daily newspapers, magazines are also beginning to spring up, and there are at least half a dozen in Shanghai that have circulations in excess of 5,000 monthly. There is only one magazine in China devoted to the interests of women, and this has a special interest for Americans in that it is a duplication, from the standpoint of contents, of the Ladies' Home Journal, of Philadelphia.

The native paper carries all sorts of advertisements, but probably those for patent medicines occupy the greatest relative amount of space. Pictorial advertisements are quite in favor and probably command more publicity than mere printed characters. For articles that depend upon the Chinese public in general for their importation—that is, articles for general distribution, such as patent medicines, toothbrushes, candies, watches, clocks, etc.—the advertising columns of the Chinese newspaper are undoubtedly very useful, but for articles whose sale is confined to a limited population and one that must essentially be conversant with the English language the newspapers published in English probably furnish a better medium of advertising. For instance, electrical machinery, railway supplies, and engineering goods, all of which seek market possibilities in China among those who are more or less conversant with English, would probably best be advertised in journals that are published in this language and that are likely to come to the attention of those in a position to make use of modern industrial plants and equipment.

THE FOREIGN PRESS IN CHINA.

There are foreign newspapers in the English language in China that have been in continuous publication for a period of 50 years. Next to Chinese, English is the language most spoken and written among the educated Chinese. Because of the Chinese interest in international affairs and the natural interest in foreign public opinion as it affects China, the foreign newspapers wield a considerable influence. Advertising in the foreign papers has still another value in that it gives the foreign article "character" or prestige in the eyes of the Chinese. A salesman for a popular American soap in China says that he has had more success in interesting Chinese dealers in his product by showing them an attractive page advertisement of the soap that appeared in colors in an American magazine than in all the verbal explanations he could make.

The advertiser should not overlook the influential journals, many of them in the Chinese language, that are issued by the various missionary organizations. These journals carry tremendous influence among that great class of Chinese who are breaking away from their ancient religious beliefs and superstitions.

In considering the value of advertising in the foreign press of China, it is of interest to note that there are approximately 165,000 foreigners in the country, according to figures published by the Chinese Maritime Customs authorities, the greater number being Russians and Japanese. Americans in China now number more than 6,000, of whom about 3,500 are missionaries and Y. M. C. A. workers, scattered over almost the entire country.

There are between 20 and 30 foreign newspapers and magazines printed in the English and French languages in China. Some of these are sound business or journalistic enterprises and have a pronounced influence. In addition to the American, British, and French publications, there have been German papers, but many of these have ceased publication since the beginning of the war. The Germans were extensive advertisers in China, in both the foreign and native press, before their activities were restricted, and their policy in this respect no doubt contributed materially to their success in building up a huge trade with China in a comparatively short period.

Even after the outbreak of the war some of the German firms in China continued their advertising in the native press and also a few other publications over which they exerted an influence. Inasmuch as German firms in China were cut off from supplies of German products after the beginning of 1915, and as many of them were without stocks, their advertising apparently was for future effect.

This policy of German firms in China with reference to keeping alive their "chops" may be of possible interest to those American manufacturers and exporters who are not inclined to incur the expense of advertising in China during periods of temporary depression (or perhaps inflation to the point of receiving orders that can not be filled).

It may safely be stated that the foreign press of China has a greater circulation among the 260,000 Chinese who speak and read English than among the foreign population of China, and these Chinese readers form an influential element among the people. The church and organization workers scattered throughout China also are in a position to exert an appreciable influence. It will therefore be seen that advertising in the foreign press may well be considered part of a thorough publicity campaign. During recent years American enterprise has built up an influential press in China, and from all viewpoints it may be said to compare favorably with that of any other foreign nation.

VITAL IMPORTANCE OF CORRECT, APPROPRIATE TRANSLATIONS.

From the standpoint of the American manufacturer desiring to advertise his wares in China, the important point is a correct translation of the English copy into Chinese and the adoption of a suitable Chinese trade-mark. The translation of the English copy into correct Chinese is a task of the highest importance and should not be trusted to one not thoroughly familiar with the native idioms in all their shades of meaning. Only too often names of firms and brands are selected by unimaginative translators to reproduce the sound of the foreign name in Chinese as nearly as possible regardless of its meaning to the Chinese. An instance of a happy translation of a firm name was that of an American banking institution in China. The officials of the bank desired a name for it to be engraved upon a plate on the front of the building. They employed an intelligent Chinese to do the work, and after considerable study the characters were selected and duly engraved upon the plate. Translated literally, they read: "The Bank of the Flowery Flag." Americans are known among the Chinese as the "flowery-flag people." Had the often-used method of selecting a Chinese name been followed, meaningless Chinese characters would probably have been selected for their similarity in sound to the English name of the bank and would have conveyed no idea of the national identity of the bank to the Chinese mind.

POSTERS AS A MEANS OF REACHING THE MASSES.

Too much can not be said of the importance of posters in reaching the great nine-tenths of the people. The printed sheet may be meaningless to the illiterate masses, but an attractive picture poster illustrating the use of the product sought to be sold is full of significance. One of the chief services of such a poster is its visualization of a trade-mark or "chop." China has no trade-mark law, but every Chinese has a wholesome veneration for a chop which he has associated with some reliable product. Once a chop has been firmly established in China, it is an extremely valuable asset. Chinese coolies, unable to read, often have been seen to purchase a package of cigarettes, go to a poster on a near-by wall, and carefully compare the design on the package with the design on the advertisement which is known to be genuine. To illustrate the vital significance of a chop or trade-mark in advertising in China, one may mention the case of a visitor to a cotton-spinning mill in Shanghai. When he arrived at the room in which the yarn was being packed and labeled, he noticed that two different labels were being used. One of them, named the "Lion Brand," would be placed on several packages of yarn and then the other label, named the "Two Girls," would be placed on the next several packages of yarn. Upon inquiring the reason for this, he was informed that the "Lion Brand" was well known at Shanghai and was the only kind that would sell there; while at Hangchow the "Two Girls" brand was so well-known that no other brand but that would sell.

In the principal cities and especially in the treaty ports individuals and companies of English, French, Chinese, and Japanese nationality have erected boardings which are rented to advertisers in much the same way that the billboards are in the United States, but there is no way of arranging for a national billboard campaign, because such companies have not come together in an organization. There are also concessions for advertising at the railway stations. The concessions on the railway lines running from Mukden, in Manchuria, to Peking and from Peking northwest to Kalgan are leased to an English advertising agency at Tientsin, and those on all the other Government railways are let to a French company in Shanghai. Boards are erected at each important station and comprise a valuable addition to the advertising plant in China. The British-American Tobacco Co. has erected hundreds of boards throughout China at crossroads, along canals, and at other points where traffic is heavy, but these are for their own use and are not available to the general advertising public. The Japanese company selling Jin Tan, a patent medicine, has made the most effective use of privately owned billboards, and through this medium, and by hanging its advertisements in front of stores where the medicine is sold and the use of show cards inside, it has made General Jin Tan the best-known advertised character in China. In Nanking the Chinese characters advertising Jin Tan have been worked out in colored stones on the hillsides.

The practice of sniping or putting posters on dead walls and unauthorized places is general throughout China, and some of the most successful advertisers have made this practice the hub of their campaigns. Practically every national advertiser uses it to some extent, as it is cheap and effective, especially in connection with folder distribution and house-to-house canvassing. The principal defect is the liability of having the posters destroyed by the village rowdies, but this is often obviated by an arrangement with the local police or the leader of the disturbing element. A cheap paper, partly glazed on one side, was obtainable before the war from Europe, but the higher prices ruling to-day do not seem to have lessened the use of this form of advertising to any apparent extent.

Posters, generally speaking, are of two sizes, large and small, the former 2½ by 3½ feet and the smaller 1⅔ by 2½ feet. They are profusely illustrated and highly colored. It is necessary, however, that both the illustrations and colors be thoroughly in keeping with

Chinese customs and meet the Chinese fancy in every possible way. Certain colors should never be used because of the superstitions that the Chinese have in connection with them. Likewise it is necessary to respect Chinese conventions in the use of illustrations. For this reason it is desirable to have the designing and execution of the posters done by agencies in China that are familiar with the requirements of that country.

An advertising trade character or trade-mark entirely suited to use in America may create an entirely wrong impression in China. An American company used in China for several years its familiar trademark, which includes the picture of a dog, before discovering that the Chinese had the impression that the machine advertised was "of low class" and that "anybody who purchased one was in the same class with dogs." It is needless to state that the dog is a despised animal in China. Had the trade-mark contained the picture of a bird it would have carried a pleasant suggestion to the Chinese mind, since practically every Chinese home has from one to a dozen pet birds.

CALENDARS AS AN EFFECTIVE FORM OF ADVERTISING.

The use of calendars is one of the most favored forms of advertising in China, as the calendar is a most important thing in the life of every Chinese. He regulates his life by the sun, moon, and stars, and never enters upon an important negotiation or journey without a careful consideration of omens and signs. Most advertisers issue a calendar, and some who never advertise in any other way put out the most elaborate designs. They are highly treasured by the recipients, and a regular trade in them is maintained. When the calendars are issued there is a general rush for them by merchants, clerks, and coolies, who turn them over to the dealers for a consideration; but as a rule there is only a halfhearted attempt on the part of business houses to get these calendars into proper hands, as the best an advertiser can wish for is that his advertisement will be bought and paid for. In the Chinese cities one sees displays of dealers in calendars on walls and in alleys where the dealers do a good business at profitable prices. One calendar issued by an insurance company in Shanghai and costing a little over $1 Mex.[1] sold for $2.50 Mex. in the shops, and was in good demand at that. As in all advertising to the Chinese, the greatest care should be taken in design and wording, though this branch of advertising effort has received the least attention from the western concerns.

A large American company in China finds the calendar idea one of the most successful advertising devices. One of its calendar issues depicted the United States recognizing the Republic of China. This was done by representing "Uncle Sam" as shaking hands with a Chinese, while at the top were draped the American and Chinese flags. The company's chop was plainly visible, with illustrations of the various uses to which the product it was selling could be put. The calendar section contained both the old Chinese calendar and the Gregorian calendar, which China has now adopted. This calendar became so popular with the Chinese that the company's representative declared he never saw such a demand for a calendar before.

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[1] See footnote on p. 124.

SUCCESSFUL METHODS EMPLOYED BY TOBACCO COMPANY.

A large tobacco company, now considered the most successful advertiser in China, pays a great amount of attention to its advertising department. It has a large printing plant of its own, turning out large quantities of advertising matter daily. An expert on advertising is continually studying the matter and introducing new pictorial methods and effects. He finds that color plays a very important part in pleasing the Chinese. For instance, a combination of colors that would appear quite harmonious to the foreign eye will often displease the Chinese taste, while some other combination of color will please his fancy so well that he will at once exclaim his delight upon seeing it and stop to admire the beauty of it for a long time.

This company has naturally many methods in its advertising. Besides printing large posters, handbills, hangers, etc., it prints beautifully colored calendars, of which the Chinese are exceptionally fond. These, as already indicated, are often made an article of barter or trade with the lower Chinese classes.

Recently this enterprising firm began issuing as souvenirs scrolls with Chinese scenery, so dear to the enlightened Chinese. With its packages of cigarettes it presents a small colored card, called a stiffener, depicting the various modes of travel, as the sampan, junk, wheelbarrow, jinrikisha, and the more modern motor boat, large steamer, motorcycle, automobile, and locomotive.

A novel idea is the method instituted by this company of giving to the jinrikisha coolie a small square rug to fit the bottom section of the ricksha on which the feet rest in riding. On this rug are the Chinese characters for the name of brand of cigarette or of the company, with the company's chop. As these rugs, with the chop thereon, are plainly visible to the passenger riding in the jinrikisha, it is at once apparent what an advertising value this small rug has, without any further cost to the company.

The tobacco company has pioneered many of the problems of advertising in China, and one of the most remarkable of its means of reaching the public is the way it has trained the dealers to arrange their stock neatly and to make attractive window displays. A person traveling through China can easily distinguish this company's cigarette shops from others by this one feature. Before the war the German manufacturers of a dentifrice did some good work along the line of window display. Naturally this development has been under the direct supervision of foreigners, and, if it is to assume any proportions, involves a large staff, such as only concerns like the tobacco, medicine, and oil companies have available.

ELECTRIC ADVERTISING SIGNS.

All kinds of ingenious electric lighting devices are to be seen everywhere in the city of Shanghai and have evidently been found profitable. A large Chinese department store on a main business street has carried out the idea of electric-sign advertising to a wonderful extent. The entire front of the four-story building is a mass of paper floral decorations among which are hidden the electric bulbs. The Chinese gilt lettering is plentiful, with lanterns and all sorts of electric lighting devices flashing everywhere. It presents a most attractive scene and to the Chinese eye a beautiful one. No matter what hour of the day, large crowds will be found gazing at the sight. A Japanese patent-medicine firm has also carried the electric-sign advertising to a great extent.

THE USE OF THE MAILS.

Department stores and medicine companies have made good use of the mails in presenting their wares to the Chinese. An arrangement can be made with the Post Office Department for the delivery of a circular or other light advertising matter with each letter. This is generally done by covering small districts, but it has been done in a large way at a surprisingly small cost to the advertiser and with good results. There are several very large and well classified mailing lists owned by foreign firms, but only one of these is available to the general advertiser. This has approximately 200,000 names classified by districts or by occupation, and there is one particularly fine list that covers a considerable part of the dealers in drugs in China. One feature of the post-office regulations that is probably peculiar to China is the custom of delivering the mail matter to the house whether the addressee has moved or not. This is not so serious as it would seem, as the Chinese seldom abandon the place of their birth, and if they do, some one of similar social standing moves in.

SHOP-TO-SHOP DISTRIBUTION.

Folders, booklets, samples, and other advertising matter are often distributed not only in the cities but in the country towns. Rather than house-to-house, this is more appropriately called shop-to-shop distribution. It is expensive unless done in a large way and in close connection with a sales campaign. An advertising agency has worked out a plan for such distribution in Tientsin, whereby the shop's signature for the advertising matter is placed in a book with its company stamp or chop. While this system is slower than the usual one, it is more impressive with the Chinese and provides absolute proof of distribution.

ADVERTISING-AGENCY SERVICE AVAILABLE.

There are perhaps in all China half a dozen advertising agencies now able to give some service to advertisers similar to the practice in the United States. As already indicated, it would be impracticable for the American advertiser to deal directly with Chinese newspapers except in the case of a very few. The first advertising club in China was organized in 1917 and has affiliated with the Associated Advertising Clubs of the World, an organization having its headquarters in Indianapolis, Ind.

SUMMARY OF POSSIBILITIES AND PROSPECTS.

To sum up, it may be said that there is no place in the world where the printed word carries more weight and influence among the literate classes than in China to-day. China has always venerated the scholar and writer. Literary men have always constituted the only distinct class that the Chinese have ever paid homage to. China has no trade-mark laws, but there is a wholesome veneration for the sacred "chop" or name that has been associated with a reliable product. Before a Chinese merchant closes his shop at night he goes out and takes down the valuable sign-board containing the name of the store. This he carefully puts away, and in case of fire it must be saved at all hazards.

In educating the multitudes of China to the use of new and foreign merchandise, there is no better way—one might even say there is no *other* way—than through well-directed advertising education. The Germans, who built up their tremendous trade in China in the short space of 30 years, advertised very skillfully through the use of circulars and cheap booklets. In the case of a new machine there were always several distinct pictures showing uses of the article; then there was a description of the article so minutely written that a child could understand it.

Advertisers should invariably make their statements truthful. Just now the Chinese newspapers are being deluged with the advertising of cure-alls and nostrums, get-rich-quick enterprises, and fake schemes and lotteries. Chinese newspapermen want to get away from these things, and the American advertiser desiring to make his merchandise known in China has the opportunity to wield the same constructive power upon China's growing press as he has wielded in American journalism for truth and honesty in business and in commercial publicity.

TRAINING AMERICANS TO KNOW ASIA.

By Commercial Attaché Julean Arnold.

INTRODUCTION.

In his efforts to reach Asia, Columbus discovered America. Since that time we have devoted too much attention to Europe, oblivious of the fact that our subsequent territorial developments make us geographically more of an Asiatic than a European power. How many Americans are there who realize (1) that the United States is closer to Asia than it is to South America, being but 75 miles distant, via Alaska, from the shores of Asia; (2) that Manila, in American insular territory, is closer to China than is Tokyo; (3) that the United States has for the past 20 years governed an Asiatic colony nearly as large in area as Japan proper, and with a population of about 10,000,000, not with the sword but with the schoolhouse, and has given to these people the most advanced and enlightened system of public elementary instruction anywhere in the world—a most brilliant achievement; (4) that the United States, including its insular possessions, has a greater Pacific coast line than has any other nation and probably as great as Japan and China combined; (5) that the first foreign consul to China was commissioned by George Washington in 1784, and that the American flag was at one time predominant in Chinese waters; (6) that the United States, by virtue of its territorial propinquity, is entitled to consider itself especially interested in China and the rest of the Far East?

It is time for the American people to realize that their future lies, in great measure, on the Pacific. Whether they wish it or not, their geographical position will force them to become a factor in Far Eastern affairs. As more than one-half the earth's population is in Asia, which is now at the inception of momentous developments in modern industry and commerce, there is every reason for the people of the United States to rejoice in the advantage of territorial propinquity that they enjoy in their relations with the Far East.

The greatest single factor in the Far East is China, which possesses a territory more extensive than that of the United States and a population nearly four times as great. The entire population of South America is only one-seventh that of China, whose peoples are homogeneous and civilized.

Although we have been spending upward of $10,000,000 a year in missionary labors in China and Japan, lavishly donating educational, medical, and social-betterment facilities to the peoples of the Far East, and although we have extended a most generous welcome to Chinese, Japanese, and other Far Eastern students to share in the educational advantages that our country has had to offer, even to the extent of providing hundreds of free scholarships for these peoples, in our efforts to help the East to understand the West and profit by what it may have to give, we have, on the other hand, neglected to accord our own people opportunities for learning to know the civilizations of Asia. An American university recently spent several years in quest of an American trained sufficiently well in Chinese to take its chair of Chinese language and literature. It would be even more difficult to find an American capable of occupying a chair in Japanese at one of our universities. Both China and Japan could select scores of their own nationals capable of occupying chairs in English in their universities. Tens of thousands of Chinese and Japanese can read what the English press has to say about their countries and peoples, but few, indeed, are the Americans who can read what the Chinese and Japanese publications tell their peoples about America and Americans.

In the curricula of our high schools throughout the country so little is included that has any bearing upon the geography, history, and commerce of the nations of the Far East, where we find one-half the earth's population, that it would almost seem that deliberate attempts have been made to keep the boys and girls of the United States in the dark as to the great world that lies across the Pacific. Even on the Pacific coast our high-school students are busy learning to know the wonders of the Age of Pericles, and yet hear nothing of the great age of art and literature in the reign of the Emperor Ch'ien Lung. They spend much time with the strife between the various Grecian cities and between the States of medieval Europe, but are told nothing of one of the most significant struggles in all human history, the Chinese revolution of 1911, which marked the dawn of representative government for one-quarter of the human race.

Our merchants and manufacturers in the United States are providing special facilities for young men who would train for foreign trade. Thousands of Americans are qualifying in Spanish for possible trade developments in South America, but how sparse are the facilities that are being offered to any who would qualify for the greater markets the world will have to offer, those of the Far East. American consuls in China often receive from American manufacturers catalogues in Spanish, designed to make special bids for foreign trade and sent out apparently with the idea that the entire non-English or non-French speaking world is Spanish. Has not the time arrived when we should provide facilities that will, at least, accord our high-school boys and girls opportunities to learn to know something worth while about the great world across the Pacific which, to most of them, still remains almost as strange as the planet Mars? We need first to train, in a very intensive way, a small army of American college men and, if possible, women also, in the languages and literatures of the principal peoples of the Far East. For the present we might well confine our attention to the study of Chinese, Japanese, and Russian.

PROPOSAL FOR ESTABLISHMENT OF SCHOOLS AND SCHOLARSHIPS.

The civilizations of the Far East are so different from those of Europe, from which the American people sprang, that it is necessary for special measures to be taken in the initial stages of training. The most effective and most practical way of meeting this situation is to train a considerable number of men in China, Japan, and Russia, where they may, by contact with the people, learn the languages and customs of the people as they can nowhere else. There should be established at Peking, at Tokyo, and at Petrograd special schools for the training of Americans in Chinese, Japanese, and Russian. Facilities should be provided at each of these schools for 100 men at a time, on a 2-year schedule of courses, with a post-graduate course of 1 year for 25 selected students. The United States Congress should provide funds for the maintenance of these schools and offer scholarships carrying $1.200 a year, exclusive of traveling expenses, to American graduates of higher schools of learning, including technical schools, and so arranged as to embrace men of varying talents and training and from all sections of the United States.

The very fact of these scholarships being offered would lend a great impetus, throughout the country, to the study of things oriental, to qualify men to take the examinations prescribed. In fact, as a result of the publicity that would follow in the wake of this arrangement, many of the school boards throughout the country would undoubtedly find it advisable to provide for courses, in their high-school curricula, in the history, geography, and commerce of the Far East.

Funds should be provided to guarantee the continuation of the upkeep of these schools, with a full quota of students, for a period of 10 years. Thus 50 students would enter each school each year, and in 10 years' time each school would have graduated about 500 students specially trained in the language and civilization of these countries, or a total army of 1,500 Americans capable of assisting in interpreting China, Japan, and Russia to the people of the United States.

At Peking and Tokyo the United States Congress has provided for the training of 10 and 6 students, respectively, every two years for the consular service, although at Peking only one student has been sent out during the past two years. The schools now proposed might embrace the student interpreters now provided for by statutory enactment, merely enlarging the present arrangements. The Government would then have the first call on these men for its consular, diplomatic, and other service requirements in its relations with the Far East. Those not chosen by the Government should be free to choose to enter professional or commercial fields in the Far East and in the United States. Undoubtedly some of the men would choose to return to the United States. As men are needed in America who have thorough first-hand information regarding the peoples and institutions of the Far East, there should be no discouragement to men returning to the United States for service at home, where educational institutions and business houses will undoubtedly seek them.

NEED OF COOPERATION AND INTERPRETATION.

China is a wonderfully rich field for archæological, historical, sociological, literary, and economic research, as its four or five thousand years of continuous civilization presents to-day to the outside world a treasure house of human experiences and accomplishments, much of which still remains wholly unknown to the peoples of the West. China also presents a great wealth of undeveloped natural resources, as likewise do the vast regions stretching into Central Asia and Asiatic Russia. To open these immense treasures to the influence of modern civilization, so that the world may benefit thereby, requires the cooperation and aid of men from the West trained to know the East.

China, Japan, and Russia all need men of the West who have become familiar with the environment of their countries, and who, through a knowledge of the languages of the peoples of these countries, are able sympathetically to appreciate the problems that modern civilization has to present to these peoples in their efforts to utilize what the West has to teach and to give, and who are competent to aid them in their adjustments to meet the demands of the new era upon which they have now entered.

Of still greater importance is America's need of Americans who can correctly interpret to its people the aspirations, ideals, and sentiments of the peoples of Asia. Although Asiatic peoples may do much to interpret themselves to us, yet we shall never correctly understand them and our relations to them until we have them also interpreted to us by our own people, who naturally view them from a different angle from that from which they view themselves.

From the commercial viewpoint, American manufacturers and merchants will make real headway in Asiatic markets, where they have their greatest potentialities, only when they follow the methods that have contributed so substantially to their success at home, including the sending out of their representatives to cultivate the friendship of those with whom they would seek business. In China friendship counts for much. The United States fortunately possesses a marvelous asset in the friendship of the Chinese people, because of its just and sympathetic attitude during the entire 140 years of its relations with China. But Americans fail to realize on this asset because the individual American does not know China and the Chinese people. We need in our business in China hundreds of men able to converse with the Chinese in their own language.

VITAL IMPORTANCE OF LEARNING LANGUAGES.

Three-fifths of the Chinese people speak practically one dialect, Mandarin, and the educated peoples of the other two-fifths are becoming familiar with Mandarin. Railways and modern public schools are eliminating dialectic differences. Foreign business men in China formerly depended almost entirely upon their compradors and had very little direct contact with other Chinese. The day of complete dependence upon compradors and interpreters is gradually giving way to the time when every live foreign firm in China will have men of its own nationality capable of dealing directly with the Chinese in their own language. Furthermore, foreigners are traveling more each year into the interior and buying from and selling directly to the trade.

The Germans before the war made much headway in trade in China because of their energy in learning the language of the people and seeking direct trade relations. The writer is informed that German buyers of hides in Central China were able to purchase their goods 15 per cent cheaper than were buyers of other nationalities, who purchased through five sets of middlemen. German dye merchants learned Chinese and thereby hastened the substitution, by the Chinese, of synthetic indigo for the natural dye, creating a trade worth $10,000,000 a year for German indigo. American missionaries, and also the biggest single business organization in China, an American oil company, realize the importance of carrying on their work through the medium of the Chinese language. When China's foreign trade, now aggregating about $1,000,000,000 a year, equals the present per capita foreign trade of Australia, it will be equivalent to $65,000,000,000 a year. The country's resources in men and materials make this possible.

The knowledge of the language of a people carries with it far more than many people seem to realize. It affords a deeper knowledge of the customs and institutions of the people and, more important still, a sympathy toward these customs and institutions, which it seems is difficult to acquire in any other way. Very few Americans in China who speak Chinese express dissatisfaction in living in the country; in fact, most of them are real China "boosters," even to the extent of being enthusiastic over the Chinese dietary. Furthermore, with a knowledge of the language, it is easier to appreciate the other man's viewpoint—a valuable asset in business as well as political relations. Very few, indeed, are the interpreters who can interpret the enthusiasm and feeling with which one often succeeds in clinching an argument.

The Chinese, Japanese, and Russian languages are more difficult of acquisition for the American than are the Romance languages, for obvious reasons. It is estimated that Chinese is about three times as difficult of acquisition for the American as French. Japanese and Russian are probably equally difficult. This is another of the reasons why it would be better to study the Asiatic languages in their home atmosphere, where they can be naturally acquired with greater ease than abroad.

MAINTENANCE AND DEVELOPMENT OF ADVANTAGEOUS RELATIONS.

The United States is certain, because of its position on the Pacific, to develop more intimate relations with the peoples of Asia year by year. It will do so whether it wishes or not. This is one of the responsibilities that attaches to its position. America will feel the effect of disturbing elements in the atmosphere of the Far East. The peace of Asia is even more a concern to the United States than is the peace of Europe, for, in its final analysis, America will have to stand much of the brunt of any serious disturbances of the political atmosphere of the Far East. Its opportunities on the Pacific are without limit, but its responsibilities will prove equally great. The only way it can meet these opportunities and responsibilities, creditably to its own civilization and its own position, is by an intelligent and sympathetic understanding of the peoples of Asia and the present problems confronting them in their relations one with another and with the West. The war has taught us that we are a part of the world rather than apart from the world, but we have yet to learn that we are particularly a part of the great world across the Pacific.

The United States will in the future succeed best in commanding the respect of the peoples of Asia when those peoples learn to know that the American people know them and temper this knowledge with justice. The record of our century and a half's relations with China is one of which we may well be proud. It has been achieved through a persistent, underlying desire always to do right, coupled with a goodly measure of what Americans term luck. While it is to be hoped that we shall continue to persist in the desire to do right, we can not always count on the other element, especially so as conditions are growing more and more complex with the introduction of other factors into the Far Eastern situation. Our only safe policy for the future is one based upon an intelligent understanding of the Far East and its peoples. This is a most essential factor. Without it we may unwittingly make some very disastrous mistakes, and our wonted good luck may not be with us at the most critical moments.

The most effective way to learn to know a people is through the medium of their language. The United States should lose no time in providing facilities that will permit a considerable number of its trained men to learn the languages of the Chinese, Japanese, and Russian peoples. This should be done in no small or niggardly way; in fact, it will be a success only when undertaken in the true American spirit, with full cognizance of the great importance that this work will have in our future relations with the peoples comprising one-half the world's population. The seven or eight hundred thousand dollars a year required for the support of this plan is a small sum indeed compared with the benefits that its effective consummation will bring to the peoples of both America and Asia in their mutual political, commercial, and social relations. Indirectly the work will produce a much needed reaction upon the whole American people, as it will undoubtedly result in an effective extension of the study of the civilizations of the Far East throughout the United States. The aggregate cost of this plan over a period of 10 years will be less than the money spent each year in American missionary work in China, and less than the amount of the Boxer indemnity fund as returned by the United States to China, under the provisions of which 100 Chinese students are being sent to America each year to profit by the best that our country has to offer in the way of educational facilities. Unless we send a goodly number of our young men to the Far East to learn to know Asia we shall fail in the responsibilities and opportunities that our geographical position thrusts upon us. Can we afford any longer to delay remedying the present one-sided policy of our attitude toward the peoples of the Far East?

TEACHING THE CHINESE LANGUAGE TO FOREIGNERS.

By Dr. W. B. Pettus, Director of North China Union Language School, Peking.

The chairman of the Chinese Chamber of Commerce in Shanghai has been quoted as saying:

> If we Chinese merchants were to go to England to establish a concern without the knowledge of the English language, and engage some of your countrymen as compradors and shroffs to carry on all the business, is it likely that the business would be prosperous?
>
> British merchants generally employ Chinese compradors in dealing with Chinese merchants. As no comprador knows everything, is it possible that they should be familiar with all kinds of goods? Furthermore, those of us Chinese merchants who have great capital and who are well versed in a certain line of business generally hold positions of great responsibility. Such men generally have no spare time to be compradors and so do not have direct dealings with the British merchants. The sale of goods is generally done through the medium of agents. Most of the old Chinese merchants do not know English, while your Chinese compradors are not likely to be good linguists, and thus our views can hardly be fully explained to your merchants.

In an address to the North China Union Language School, Sir John Jordan, British minister, expressed his opinion on the matter of language study as follows:

> Until comparatively recent times a knowledge of Chinese was confined to the consular services and missionaries. It was not a study which found much favor with the outside public of the treaty ports and "Chinese scholar" was as often as not a synonym for a crank or a lunatic. The foreign merchant lived his own life and was quite content with his own little world, with his race course and his club, while his wife found her time occupied with tennis and afternoon tea parties. For all the knowledge of Chinese they acquired they might have been thousands of miles away from China. Missionaries, on the other hand, obtained the right of residence in the interior, and to them we owe a very great deal of the knowledge of the Chinese language, which is being spread so rapidly nowadays by such institutions as the Union Language School. In the old days the merchant and the missionary were far apart and there was very little communication between them. It is greatly to the advantage of all of us that this state of affairs is fast disappearing. Railways, too, have brought increased means of communication; trade has been obliged to seek new outlets. Cities like Changsha, for instance, which were once hermetically sealed to the foreigner, are now thriving with business from abroad.
>
> The merchant now finds it as necessary to know Chinese as the missionary. There must be hundreds of young Americans and Englishmen scattered over the country pushing the trade of such immense concerns as the British-American Tobacco Co., the Standard Oil Co., the Asiatic Petroleum Co., and, believe me, the time is not far distant when the foreign merchant will be found in every important center in China. Young men now realize that a knowledge of the language of the country is a valuable asset which will become more valuable as time goes on. In a few years foreign firms when advertising for assistants will stipulate for a knowledge of Chinese as a necessary qualification.

RELATION OF LINGUISTIC ABILITY TO BUSINESS SUCCESS.

In a bi-lingual business the man who speaks both languages really makes the decision—in other words, the principals are at the mercy of the interpreter. The foreign business man who can speak Chinese is worth more to his firm than the man who has to work entirely through interpreters.

Many firms have secured British and American representatives who can speak Chinese because they have been given opportunity to learn the language in connection with consular, customs, or missionary service, but the supply from such sources of men who are available for business houses is entirely too small and if the British and American firms are not to lose out in competition with the representatives of other nations a stronger policy in regard to the study of the language must be adopted.

There is no large future in China for firms that do not give adequate facilities to the members of their staffs to learn the language. Business houses, legations, missions, and Government services have been experimenting with this problem for several decades and have acquired a fund of experience that makes it possible to draw up a policy that will guarantee success.

PROPER AND IMPROPER METHODS OF INSTRUCTION.

Experiments have shown that the methods of language study that succeed in Europe are equally applicable in the study of Chinese.

Unfortunately, the average American or British young man has had no experience in learning to speak a foreign language, and learning to speak is more important than learning to read, write, translate—though these, of course, have their value. The experience that the average young man has had in working on Latin and Greek, and even in most cases on the modern languages, may be well described as a careful course of training, scientifically planned to unfit him for learning a language.

The question as to whether one will learn to speak a language depends less on the so-called "natural ability" than it does on the adoption of the right methods of teaching, and these are known and can be learned by all. Chinese teachers have been trained to use these methods and to carry responsibility, taking all the initiative and directing the student in his study. Formerly the general opinion among foreigners was that if a person was not insane when he began the study of Chinese he would become so as a result of the study. There are many in China who undertook at one time to study the language, but finding that their so-called teacher knew nothing about teaching, and that they did not know enough to direct the teacher in his work, they gave up the attempt in disgust. All this is changed now, and the language can be studied under conditions that are as favorable as those under which one learns to speak European languages.

FOUR STAGES OF DEVELOPMENT IN STUDY OF CHINESE.

There have been four stages of development in the study of the language by foreigners in China:

1. At the commencement the seniors planned no fixed course of study for their juniors and consequently some studied and some did not.

2. Courses of study were prepared and periodical examinations were required more or less regularly. The students were told to pre-

pare certain material but were given only indefinite directions as to what would be regarded as mastery, with the result that many students studied Chinese as they had studied Latin. They learned only to read and translate, often failing to proceed to conversation. Little help was given to the student, and often the teacher had no idea of the standard of efficiency to be attained. Some good sinologues were produced by this method, but it wasted much time and resulted in too high a percentage of failures. The solution of the problem is not in the preparation of proper textbooks, nor in the selection of the best of those already prepared—though this should not be neglected—but in securing suitable teachers.

3. It was decided that the old-style Chinese teacher when left to himself was not a success, and language schools with foreign teachers were established. These provided classes that newcomers could attend. Class competition proves stimulating, and once or twice a week the student's work was checked. These classes have been usually conducted in English by foreigners, who, even when they have been excellent masters of it, lectured about the language, but seldom in it. Furthermore, though the teachers were more carefully selected, they were often given little or no training and the work done by the student apart from the class hour was directed by himself, and not by the private Chinese teachers, who were employed and paid by the students. Practically none of the classes were supervised by Chinese teachers; often the class was conducted by the foreigner with no Chinese teacher present. In some of these schools reading and translating have been the principal work, and conversation, which should be the very center and foundation of all study, has been more or less of a side issue.

4. At least two of the language schools in China, those in Nanking and Peking, have greatly increased the efficiency of their work by taking entire charge of the study time of their students, furnishing them with trained private teachers who direct their work. The best of the Chinese teachers have been trained to teach the classes, and the best part of the time and energy of the head of the school (who in each case is a foreigner who has made a study of the science of linguistics and who has visited many other language schools) is given not to instructing the students about the Chinese language, but to training and supervising the Chinese teachers. Experience has proved that the Chinese can be trained to teach, and since their knowledge of the idiom, and their pronunciation, accent, and tones are naturally superior to the best of foreigners they can do work both as individual teachers and in leading groups much more efficiently. Furthermore, where the teachers have been trained to teach, and know how to make use of pictures, objects, and acting, they teach effectively without the use of English, so that the students get 60 minutes in every hour. Very little time is thus taken up with explanations. The supply of teachers is unlimited, and the groups of students can be made as small as desired, and as a result, class conversation is feasible. For efficiency and economy no better plan has yet been devised. Conversation is made the principal factor, the students learning by listening and talking. They soon learn to think in Chinese, and conversational mastery is followed up and strengthened by learning to read, and later to write, the material that they have first been taught to use orally.

Both of these schools provide for two plans of study—one for those who give their entire time to the study of the language, the second for those who are able to devote only an hour or two a day to this work. In the latter case the students come to the school twice a week for class work and personal teachers are sent to their homes or offices for an hour a day.

DESIRABILITY OF TRAINING IN LANGUAGE SCHOOLS.

Provision should be made in all the large ports for classes for both British and American business men. There is every reason why these should be combined. Experience has shown that the young men should in the beginning work under a foreign director, and that the actual teaching should be done by Chinese who have been trained for this work and who are employed and controlled by the school and not by the student. Many young men, however, are being sent to the smaller outports or into the country soon after they arrive. It is true that the firms usually pay for a teacher, but a teacher who does not know how to teach, working with a student who does not know how to study, can not produce good results. Why should not the firms follow the example of the Government services, legations, and missions in sending their men to the Peking or the Nanking school for, say, six months, where they will work under the best of conditions, and then send them to their ports with a trained teacher from one of the language schools? Such a stay in one of the language schools would not only provide a good working vocabulary and a knowledge of how to learn more of the language, but would be a time of training in "things Chinese" that would make the young men permanently more valuable to their firms.

PRESENT CONDITIONS OF GOVERNMENT EDUCATION IN CHINA.

By Dr. Fong F. Sec, Shanghai.

HISTORICAL BACKGROUND.

It was not so very long ago that China was noted for its conservatism and its people were referred to as the "unchanging Chinese." But during the last two decades the changes in China have been so kaleidoscopic that we often hear the complaint nowadays of China's going too fast. The changes are so rapid that nobody knows what the country will do next. This is especially true with reference to the changes in its system of education. It would take too long to tell of the many changes in Chinese education during recent years, so we shall confine ourselves to giving an account of the system of Government education as it exists in China, pointing out its trend, and indicating some of its problems.

China, under the old educational system, cannot be said to have had any Government schools. Education was left to private effort, but literary attainment was decided by the Government through its system of competitive examinations and was rewarded by official recognition. When China was forced to join the family of nations, it discovered that, in order to preserve its national existence, it must modify its system of education. Instead of devoting all their attention to the study of the Chinese classics, the people now seek to understand the sciences, literature, art, laws, and government of western countries.

From the day that China came into intercourse with western nations, it began to feel the impelling influence of reform. Notwithstanding the tremendous conservatism that had to be overcome, some of the Chinese rulers, scholars, and statesmen early saw the imperative need for China to learn those things that have made the western nations great. It was in 1898 that Emperor Kuang Hsü issued his famous reform edicts. They embodied all the reforms that have since been instituted in China. In the summer of that year he issued an edict outlining the organization of a national system of modern schools for teaching Chinese and western learning. The scheme provided for the establishment of schools and colleges in the districts, prefectures, and provincial capitals, the whole to be capped with a university at Peking. This edict was of the greatest importance, for soon after its promulgation schools sprang up over the country.

However, this enthusiasm for the new education was dampened by the Empress Dowager Tsu Hsi. In the autumn of that year, after taking the reins of government into her own hands, she rescinded the Emperor's educational edicts and restored the literary examinations. Her retrograde policy plunged China into the Boxer uprising and nearly caused the downfall of the nation. When the court returned to Peking, she became a progressive, reenacted and enlarged upon the Emperor's edicts, and started the country once more on educational reform.

In September, 1901, she issued an edict ordering the provincial examination halls to be turned into colleges. A middle school was to be opened in each prefecture; an elementary school was to be established in each district, and primary schools were to be established in large numbers. At about the same time she sent out another edict, urging the viceroys to send students abroad to study the new learning.

In quick succession appeared edicts for the establishment of colleges in the provincial capitals and leading cities, the opening of normal schools and an educational board in Peking, modifications of the competitive examinations, etc. But this attempt to graft the new onto the old did not work well. It was found that as long as the old examination system was retained, the modern schools would not prosper. So, in September, 1905, the last blow was given to the old-style literary examination. To appreciate the significance and far-reaching effect of abolishing this traditional system, we need to remember that this time-honored system swayed the intellectual and official life of the Chinese people for more than 12 centuries. Its aim was to prepare and select men of ability for the service of the State. It served its purpose. It had its germ in the maxim, "Employ the able and promote the worthy." The scholars chosen through the competitive examinations became public officials, and entrance to official life was regarded as the goal of all higher intellectual training. With the doing away of the civil service examinations came the spread of modern education, which sought to provide courses intended to train pupils to meet the demands of the times.

The revolution of 1911, which overthrew the Manchu Dynasty and ushered in the Republic, was a notable landmark in the history of education in China. Soon after its organization at Nanking, the provisional government turned its attention to popular education. It demanded the use of only such textbooks as were in harmony with the spirit of republicanism. It emphasized manual work, military and physical exercises, eliminated the classics from the primary school, and permitted boys and girls to study together in the same lower primary school. It also stressed social education.

When the Republic became a fact, education took on a new aim. The chief emphasis was the formation of a moral character, which was to be supplemented by an industrial and military education and rounded out by an aesthetic education.

Thus we see that the system of education in vogue to-day in China came down from the Manchu Dynasty, modified to meet new conditions brought about by the change in the form of government. With this historical perspective we are ready to consider the system as it exists.

PRESENT SYSTEM OF ADMINISTRATION.

At the head of the system is the Ministry of Education, with its Minister of Education, who has general supervision of matters pertaining to education throughout the country. He is assisted by a vice minister and four councilors. The work of the Ministry is divided into three bureaus—bureau of general education, bureau of technical or professional education, and bureau of social education.

The bureau of general education has charge of kindergartens, primary, middle, and normal schools, school attendance and certification, and appointment of teachers. The bureau of technical or professional education looks after the affairs of colleges and universities, higher technical schools, and the sending of students abroad. The bureau of social education has charge of affairs relating to popular education, public lectures, libraries, the stage, museums, exhibits, etc.

The Ministry of Education sends out inspectors to visit the schools of the various Provinces. The country is divided into eight districts, each of which is provided with two inspectors. The inspectors are expected to look into educational administration, school conditions, finance, hygiene, the work of the educational officers, social education, and matters indicated by the Minister of Education. They have no arbitrary power, but they may express their opinions to the local educational authorities regarding school instruction and management, violation of educational laws, and matters decided upon by the Minister of Education.

In each Province and administrative area is a commissioner of education, who takes charge of the educational affairs of the Province. He is the agent of the Ministry of Education and has the help of a corps of assistants. His duties are to see that the regulations of the Ministry of Education are carried out and to make reports of educational conditions in the Province. Each Province has also a number of inspectors, who are required to visit schools and make reports. Each district has its board of education to look after its educational affairs, with its school inspector. Certain gentry are selected to manage the educational affairs in cities, towns, and villages.

ORGANIZATION OF SYSTEM.

The accompanying chart (fig. 21) gives a graphic representation of the school system existing in China, with the approximate age of a pupil for a particular grade. At the bottom is the lower primary or citizen school of four years. After completing this course a pupil may enter a higher primary school or an industrial school of the "B" class, whose course covers three years. From the higher primary school a pupil may go to a middle school, whose course extends over four years, or an industrial school of the "A" class, or a normal school. For pupils who can not go on to a higher grade after finishing the lower primary or higher primary school, supplementary courses of two years are provided. A pupil may go from the middle school to a university, which has a preparatory course of two years and a collegiate course of four years, or he may go to a professional school or a higher normal school. The higher normal school course requires four years, with one preparatory year. The industrial school also requires a preparatory year, and its course covers three years.

PRIMARY SCHOOLS.

Primary education aims to develop a child mentally and physically, lay the foundation for good citizenship, and enable him to make his own living in the world. These aims are common to the lower and higher primary schools. The responsibility for establishing primary schools rests with the cities, towns, and villages, either singly or conjointly. Higher primary schools are established by districts, whose officials determine their number and location. If they have the money, cities, towns, and villages may also establish higher primary schools with the consent of the district magistrate. Kindergartens, schools for defectives, and other schools of a corresponding grade are managed in the same way as the primary school.

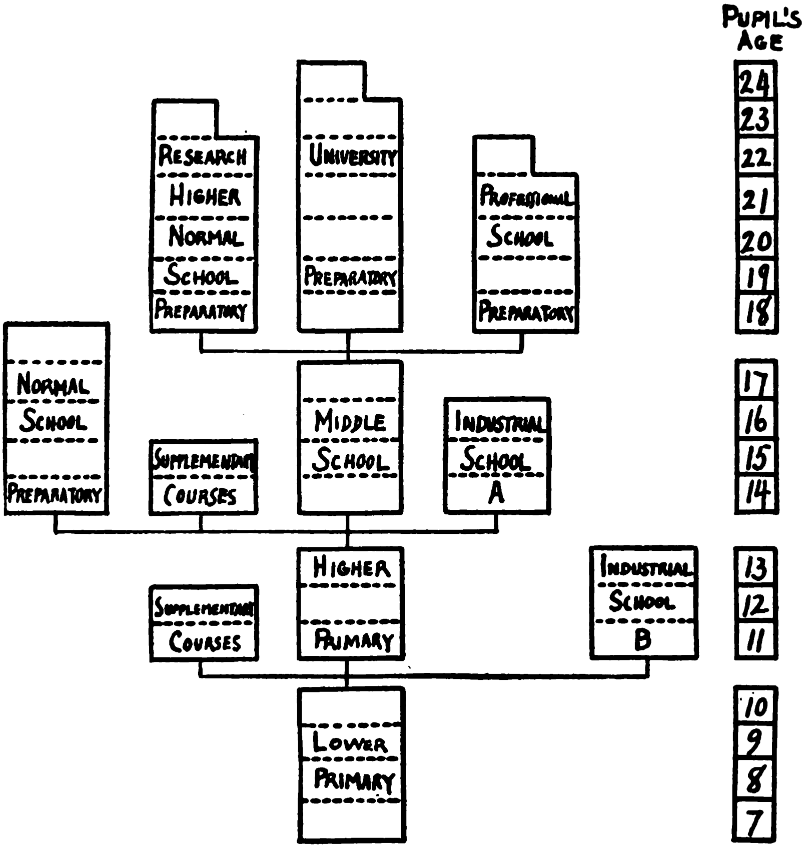

FIG. 21.—Graphic representation of school system in China.

MIDDLE SCHOOLS.

The middle school aims to complete the general education of a child and to make him an efficient citizen. The provincial authorities are responsible for the establishment of middle schools, whose number and location are determined by the Governor of a Province. Provincial middle schools are maintained by the revenue of the Provinces. District middle schools may be established by districts if they have the money.

THE UNIVERSITY.

The university aims to train men of ability for the service of the State. Its preparatory department has three groups of alternate courses. One is for students who wish to enter the faculty of arts, law, and commerce, another is for those who look forward to entering the faculty of science, and the third is for those who intend to enter the faculty of medicine. The university offers courses in arts, science, law, commerce, medicine, agriculture, and applied science.

PROFESSIONAL SCHOOLS.

Professional schools, which may be established by the central Government, provincial authorities, or private individuals, aim to train for some special profession or vocation. They may be classed as schools of law, medicine, agriculture, commerce, art, music, science, language, etc.

NORMAL SCHOOLS.

Normal schools are divided into boys' normal schools, girls' normal schools, and higher normal schools. Their aim is to train elementary school-teachers. The higher normal schools are to train teachers for the middle and normal schools. This class of schools is established and supported by the Provinces. The provincial authorities decide the number and location of normal schools, but districts and private individuals may also establish normal schools with the consent of the provincial authorities. Higher normal schools are established by the central Government, and are therefore regarded as national institutions. Normal and higher normal school students do not pay tuition, but, on the contrary, receive an allowance from the school. Each normal school has a practice school attached to it, and each higher normal school has an elementary and a middle school for practice teaching. Kindergartens may also be attached to girls' normal schools.

INDUSTRIAL SCHOOLS.

Industrial schools, which are of two kinds, "A" and "B," aim to impart the knowledge and skill required in trades, commerce, and agriculture. The "B" grade of industrial schools gives an elementary industrial education according to the needs of localities, while the "A" grade gives a complete general industrial education. Industrial schools of the lower grade are established by the districts, cities, towns, and villages, or by bureaus of trades, commerce, and agriculture, while those of the higher grade are established by the Province.

It is thus seen that, generally speaking, the central Government is responsible for higher education, the provincial government looks after secondary education, and elementary education is in the hands of district officials and the gentry of cities, towns, and villages.

CURRICULUM.

What do these schools teach? It would take too long to describe the courses for the different grades of schools, so we shall give but a brief account of the content of the curricula of primary and middle schools.

The course of study for the lower primary school includes the following subjects: Ethics, Chinese, arithmetic, drawing, manual work, singing, and physical culture, with sewing for girls. The number of weekly recitation periods (including study) of 45 minutes ranges from 22 in the first year to 28 for boys and 29 for girls in the fourth year.

The subjects taught in the higher primary school are: Ethics, Chinese, arithmetic, history, geography, science, drawing, manual work, singing, and physical culture. Sewing for girls and agriculture for boys are added. English is required in the third year, and this subject may be begun in the second year in some localities. The number of recitation periods of 50 minutes each per week is 30, with two additional periods for girls in the second and third years.

The middle school curriculum prescribes the following subjects: Ethics, Chinese, mathematics, foreign language, history, geography, nature study, physics, chemistry, civics, drawing, manual work, domestic science, gardening, music, and physical culture. The number of weekly recitation periods of 55 minutes for boys is 33 for the first year, 34 for the second, 35 for the third, and 34 for the fourth, while those for girls range from 32 to 35. Girls are required to take domestic science and sewing, with gardening as an optional subject.

The curricula as they stand represent many changes and are quite different from what they were when first promulgated during the Manchu régime. One of the great changes was the elimination of the Chinese classics, which formerly occupied one-third of the total number of school hours in the higher primary school. Three periods a week are now devoted to the Chinese classics in the higher primary school. This change made it possible to introduce new subjects, which are taught with the experimental method. Another significant change was the introduction of social and industrial subjects, correlating the work of the classroom to the demands of real life. Such studies as manual training, drawing, domestic science, and agriculture give the boys and girls of China a chance for sense-training. The third change of considerable significance was the relief of the crowded schedule. This enables the pupils to do more thorough work and prevents them from injuring their health through overstudy.

STATISTICS.

The last statistics published by the Ministry of Education are for the year 1913–14; the figures for that year and 1912–13 are given below for comparison:

Item.	1912–13	1913–14
Number of schools	87,272	108,448
Number of students enrolled	2,933,387	3,643,206
Number of students graduated	173,207	232,221
Number of teachers	129,297	104,607
Number of school administrators	98,929	122,174
Annual income for schools	[a] $29,647,098	[a] $34,170,082
Annual expenditures	[a] $29,667,808	[a] $35,151,361
Permanent school fund or property	[a] $88,041,180	[a] $98,087,158

[a] Chinese dollars. See footnote on p. 124.

It will be seen that there was a general increase in the figures for 1913–14 over those for the preceding year. The increase in the number of students was 24 per cent. The number of students enrolled in the different Provinces, in round numbers, varied from 430,000 in Szechwan to 15,000 in Heilungkiang. The Ministry of Education is now collecting up-to-date statistics, which will be issued in a few months, and it will be interesting to know what progress education in China has made during the interval.

According to "The Educational Directory and Year Book of China" for 1918, the number of pupils in schools in China during 1917 was 4,075,338. This grand total is made up of 3,898,065 boys and 177,273 girls. The total number of schools, according to the same authority, was 122,286.

AUXILIARY ORGANIZATIONS.

Under "Organization of system" we have described briefly the controlling agencies of the Chinese educational system. Here we wish to give a summary account of some of the auxiliary organizations that exercise much influence in shaping the educational policy and in spreading education.

PROVINCIAL EDUCATION ASSOCIATIONS.

In every Province and territorial district there is a provincial education association, formed by teachers, administrators of education, and persons who are interested in educational work. The association acts as a connecting link between the schools and the Government. It promotes new movements in education. Within it are various organizations, such as kindergarten association, primary school association, normal school association, English teachers' association, Boy Scouts' association, etc. It sends delegates to the National Alliance of Provincial Education Associations, which holds a yearly conference. It gives public lectures and conducts summer institutes.

NATIONAL ALLIANCE OF PROVINCIAL ASSOCIATIONS.

This Alliance is composed of the provincial education associations of different Provinces and territorial districts. It holds an annual conference at a place designated by the conference of the preceding year. Each Province or territorial district sends three delegates to the conference. The Alliance has no officers, and the chairman of the conference is elected at the first meeting. The purpose of the Alliance is to exchange educational ideas among the delegates, to discuss, deliberate, and pass resolutions concerning educational policies. If resolutions are passed, they are forwarded to the Ministry of Education. Some of the important resolutions passed and communicated to the Ministry of Education by the conference of 1917 were:

To divide the country into university districts and to establish universities therein.

To adopt standard pronunciations for the Chinese language and to extend the use of the new phonetic alphabet throughout the country in order to unify the spoken language of the nation.

To standardize scientific and technical terms.

To make preparations for carrying out compulsory education in the near future.

To make plans for extending vocational education.

To extend female education.

ALLIANCE OF HIGHER NORMAL SCHOOLS.

The recent conference of higher normal school principals formed an alliance for mutual assistance. The alliance will meet once a year to exchange ideas and consider questions of common interest.

INDICATIONS OF PROGRESS.

Considering that the new education in China has been conducted with poorly qualified teachers and administrators and has been handicapped by lack of funds, good progress has, on the whole, been made. A foreign observer recently said: "There can be nothing but praise for the persistent pursuit of an ideal; and it is gladly admitted that real progress has been made by the educational authorities during that troublous last five years in an environment crowded with clashing political and material interests."

The year 1917 was characterized by the civil war between the North and the South and the Tientsin floods, which affected education a great deal. But in spite of these handicaps, educational work, except in the districts where fighting took place or the districts that were under water, went on as usual. The diverting of school funds for military purposes was the greatest obstacle to progress. To raise necessary funds, the Ministry of Education resorted to extraordinary means. A notification was published that the Government would reward with the Chia-ho decoration anyone who would contribute $100 toward educational work. During the year the Ministry of Education took two important steps to promote efficiency in administration and in the teaching force.

One of the important steps was the establishment by presidential mandate of the office of the commissioners of education in the various Provinces. This was followed by the appointment of commissioners of education by the Ministry of Education for the Provinces. This step was taken with the idea of centralizing the control and carrying out developments in the administration of education. The new commissioners are occupying much the same position under the governors as the chancellors of education under the Manchu rule.

The examination and certification of teachers constitutes another important step taken in 1917. The Ministry of Education recently sent instructions to the Provinces requiring all primary school teachers to take an examination. This order is being carried out, and certificates are being issued to teachers who have the necessary qualifications. The work is entrusted to a board of examiners appointed by the commissioner of education of each Province. Graduates of normal schools of recognized standing are exempted from the examination. The conference of principals of higher normal schools also recommended that middle school teachers be examined. These steps, when carried out, will weed out those teachers who do not possess sufficient qualifications and will raise the efficiency of the teaching force.

RECENT DEVELOPMENTS.

BOY SCOUT MOVEMENT.

The Boy Scout movement is popular and successful in a number of centers in China, especially in Shanghai, Canton, and Wusih. It is destined to play a large part in the educational life of China. There are more than 4,000 scouts in Kiangsu, and Kwangtung has half that number. Last year the Kiangsu Educational Association called a meeting of scoutmasters with the view of organizing a provincial Boy Scouts Association. Later delegates adopted regulations for such an association. A training school for scoutmasters was held at the Kiangsu Educational Association for three weeks during the summer of 1917, and was attended by nearly 200 primary school teachers. The Ministry of Education sent out a dispatch praising the fine work of the Boy Scouts of Shanghai and Wusih. The ministry also instructed the provincial inspectors of schools to do their best to promote and encourage the Boy Scout movement. Under the auspices of the Boy Scouts Association of China a big scout rally was held in Shanghai in November, 1917. About 500 scouts, representing nearly all the troops in the district, attended. They gave admirable exhibitions of flag signaling, scout drill, and cycle drill.

VOCATIONAL EDUCATION.

In line with the modern trend in western countries, vocational education has been engaging the serious attention of educators in China during the past several years. It is a live question at present. It has been found that the majority of the middle-school graduates can not do anything toward making a living, showing that the schools of China are not training men to do the work of life. Hence there has been a feeling that Chinese education should be more practical and that an effort should be made to correlate our school work with the work of real life. This gave birth to the National Vocational Education Association, which has a membership of more than a thousand, including most of the leading educators in China. The provincial education associations and a number of Government officials have pledged their support to the movement. Following the National Education Conference in 1917 the delegates were invited to a conference on vocational education at the Kiangsu Educational Association building. The delegates pledged themselves to push this phase of education in their respective Provinces on their return. The Kiangsu provincial government is granting an annual subsidy of $3,000 toward the current expenses of the association. A large sum of money has been subscribed by wealthy Chinese in the Philippines and Straits Settlements for a model vocational school in Shanghai. The secretary of the association is Dr. Monlin Chiang, who received his degree of Ph. D. from Teachers College, Columbia University, and who is one of the editors of the Commercial Press.

ARBOR DAY.

The people of China are beginning to see that there is a close connection between deforestation and floods and to realize the beneficial effect of forest trees. The Chinese Forestry Association has been trying to get the people to set aside the Ching Ming festival, which occurs at the commencement of spring, as a time for planting trees. The association has been sending out much printed matter urging schools, clubs, and the people generally to impress upon the minds of the children of China the importance of the tree in the life of the nation. The schools are beginning to observe Ching Ming as an arbor day.

ATHLETICS.

Sports of various kinds are being taken up with zest in Chinese schools. School athletic meetings are being held in all parts of China, and a proper liking for manly sports is rapidly spreading. China now competes with Japan and the Philippine Islands in the Far Eastern Olympic games, which are held every two years. In 1917 the Chinese athletes made a poor showing in Japan. This defeat has stimulated greater effort, if one may judge from the many track and field meets held in the spring of 1918, especially in North and East China. A series of local meets culminated in two great sectional meets—the North China Amateur Athletic Federation meet, held at Paotingfu, and the East China Intercollegiate Athletic meet, held at Hangchow. The former meet in 1918 was the greatest occasion in athletics for China. Thirty-one institutions from nine northern Provinces sent teams. Besides regular track and field events, there was an intercity basket ball tournament, exhibition games in volley ball and baseball, and some gymnastic work by a special class in the Normal College.

At the same time and place was held the Chihli Middle School meet. Many new records were established at these meets.

A beginning is being made in providing playgrounds in Chinese cities. The demand for teachers of athletics and supervisors of play has called into existence schools of physical education. Chief among this new class of schools are the schools of physical education recently opened by the national committees of the Y. W. C. A. and Y. M. C. A. of China, whose graduates will do much to improve the health of the Chinese people and develop the play instinct in Chinese children. This attention paid to western athletics has revived interest in the ancient system of boxing and fencing.

PRESENT TENDENCIES.

MOVEMENT TO MAKE MANDARIN THE UNIVERSAL LANGUAGE OF CHINA.

The unification of the spoken language of China has received the thoughtful consideration of Chinese educators in recent years. The Ministry of Education has engaged experts in working out a system somewhat resembling the "kana" in use in Japan. The sounds of the language have been assigned symbols, and it is believed that the system will greatly lighten and simplify the work of children during the first years at school. This system has been perfected, and had it not been for the unsettled state of the country due to political changes it would have been promulgated before now. The conference of principals of the higher normal schools, held in Peking recently, recommended that an organized effort be made to do away with the dialects and to make Mandarin the only spoken language of China. It was expected that during the summer of 1918 teachers in non-Mandarin-speaking districts would be required to take courses in special institutes to learn Mandarin and phonetic scripts.

A system known as the Chu-yin Tzu-mu system for simplifying Chinese writing is now being used widely. It has been adopted by the army as the basis of its signal code, and is therefore being taught to all the army. It is also the basis of the code used by the police. It is being taught to the Chinese labor battalions in France. It has not only been taught in Peking but has also been approved by the Kiangsu Educational Association, which conducts evening classes teaching it. A number of books have been written and published making use of the system. It is probable that the use of this Chu-yin Tzu-mu system will be rapidly and widely extended, and that much literature will be printed in this form of script. The growth of democracy in China will depend largely upon the extent to which the people are informed regarding the Government. This is one of the underlying causes that will promote the use of simplified writing in China.

EDUCATIONAL COMMISSION TO AMERICA.

The conference of principals of higher normal schools also recommended that an educational commission be sent to America in 1919, to be composed of the principals of the six higher normal schools of the country and delegates from the Ministry of Education. Dr. P. W. Kuo, acting president of the Government Teachers College, Nanking, who specialized in education in Teachers College, Columbia University, was expected to be a member of the commission.

UNIFICATION OF EDUCATIONAL METHODS.

The adoption of special means to unify educational methods was decided upon by the above-mentioned conference. The scheme provides that two-thirds of the students for each higher normal school should come from outside Provinces and only one-third from the Province in which the school is located. This system will do away with provincialism, which is strong in some sections of the country, and will make the educational methods more uniform.

EDUCATIONAL EXHIBIT.

It has been decided to hold a nation-wide exhibit on education in Peking in 1919. This will enable educators from different sections to see what is being done in other parts and will do much to extend education in China.

OUTLOOK FOR FUTURE.

Financing the new educational system remains one of China's unsolved problems. The money for the maintenance of schools is included as one of the regular items of the national and provincial budgets. Unfortunately, the spending of these appropriations is left with the officials, who may use them for other purposes. Modern education will make but slow progress so long as this is possible. A special education tax will have to be levied. This will probably be done when the internecine strife comes to an end and the Government can pay more attention to educational matters.

The enforcement of compulsory education throughout the country in the near future is a big undertaking, accompanied with many difficulties. To make education universal throughout China, it is estimated that 1,000,000 schools, with 1,500,000 teachers, are needed. The emphasis is now wisely placed on primary education. The plan now is to extend education to all, not to provide educational facilities for a few. Preliminary measures require children from 7 to 14 years of age to attend school.

Efforts will be made to bring about a closer adjustment of school work to the rapidly changing social and industrial conditions of the times, and to make the curriculm a means of preparing the pupils for their career after leaving school. This attempt to relate education to life will result in a more practical form of education for China.

In this article we have endeavored to state facts, and not generalizations, without any attempt at unity. We have tried to look at the progress of Government education sympathetically. After all that is said and done, the overpowering thought is how much still remains to be done. Instead of 4,000,000 there should be 40,000,000 children in school in China. What a gigantic task lies ahead of Chinese educators! Undoubtedly the new education in China presents many glaring defects. Were we to look for them we would find plenty of instances of inadequate equipment, inefficient teachers, poor textbooks, lack of discipline, ill-qualified inspectors and administrators, etc. But we believe that real progress is being made in spite of adverse conditions. We prefer to take comfort in the thought that the Chinese people are earnest in the pursuit of their educational ideal notwithstanding the serious difficulties in the way. Given time and the establishment of peace within its borders, we feel confident that China will work out a system of education suited to the needs of its people amid new and changing conditions.

OPPORTUNITIES FOR PUBLISHERS, MANUFACTURERS, AND EDUCATORS.

By Dr. Y. T. Tsur, formerly President of Tsinghua College, Peking.

The three millions and more of students in China must be supplied with textbooks. It is true that a few large Chinese publishing companies have been called into existence and have turned out large supplies of readers, grammars, geographies, etc. These texts, however, are largely for the lower grades. The difficulties of translation, and the lack of Chinese teachers competent to teach modern subjects in Chinese, tend to encourage the use of English as the medium of instruction in the middle and high schools, resulting in the use of foreign textbooks. So far the publishing companies in China have been able to supply only a small part of the demand; all the more advanced and technical textbooks have come from abroad. Consequently, it has become a custom in many schools to establish an ordering department through which text and library books are obtained from foreign countries. The growth of libraries has created a similar demand. Publishers and booksellers abroad should find in China a promising market for their best publications.

Side by side with the demand for textbooks is the need for school equipment and supplies. The modern school must be equipped in the modern way. The laboratories, workshops, the recitation rooms, and offices require apparatus and equipment that can only come from abroad. The products of foreign manufacture are likewise in great demand for the gymnasium, for athletics, and for games both outdoor and indoor, for these things are not made in China, and Japanese products are generally not of the best quality.

Modern school buildings are being multiplied wherever institutions can afford the expense. The steelwork, plumbing and heating, and other equipment are directly imported from foreign countries.

Above all, educators are needed in China. For the time being, all higher scientific subjects are taught in English. In 1911 there were 545 foreign teachers in all the Government institutions, and it is reasonable to believe that the number has increased since then.

Therefore the field of education in China is bigger than it seems, and the opportunities therein presented are greater than the cursory observer may have imagined. There is much to be done, for here is a field for the publisher, the manufacturer, and the philanthropist, no less than for the teacher.

LIST OF PROMINENT EDUCATIONAL INSTITUTIONS IN CHINA.

Following is a list of the principal institutions of higher education in China (for a complete directory of missionary schools, hospitals, etc., the reader is referred to the Mission Year Book):

Names of schools.	Number of students.	Location.	Nationality.
UNIVERSITIES.			
Canton Christian College	500	Canton, Kwangtung	American.
Government University	500	Peking, Chihli	Chinese.
Peking University	600	do	American and British.
Peiyang Government University	360	Tientsin, Chihli	Chinese.
Hunan University (Government)	190	Changsha, Hunan	American.
Yale College in China	190	do	Do.
Yale College of Medicine	53	do	Do.
Boone University	353	Wuchang, Hupeh	Do.
University of Nanking	488	Nanking, Kiangsu	Do.
Aurora University	180	Shanghai, Kiangsu	French.
St. John's University	492	do	American.
Soochow University	416	Soochow, Kiangsu	Do.
Hongkong University	220	Hongkong	British.
Shantung Christian University	103	Tsinan, Shantung	American and British.
North West China University		Sianfu, Shensi	
West China Union University	355	Chengtu, Szechwan	American, Canadian, and British.
COLLEGES AND HIGH SCHOOLS.			
Canton Christian College	425	Canton, Kwangtung	American.
Christian College	60	Hangchow, Chekiang	Do.
English Methodist College	145	Ningpo, Chekiang	British.
Trinity College	60	do	Do.
United Methodist College	120	Wenchow, Chekiang	Do.
Customs College	114	Peking, Chihli	Chinese.
Normal College	409	do	Do.
North China Union Theological College		do	American and British.
North China Union Women's College	38	do	American.
Tsing Hua College	624	do	Chinese and American.
Anglo-Chinese College		Tientsin, Chihli	British.
Nankai School	907	do	Chinese.
North China Union College of Arts	87	Tungchow, Chihli	American.
Anglo-Chinese College	190	Kulangsu, Amoy, Fukien.	British.
Amoy Girls' High and Normal School	60	do	American.
Talmage College	87	do	Do.
Angle-Chinese College	472	Foochow, Fukien	American (now one).
Foochow College	426	do	
Trinity College	350	do	
Women's College of South China	120	do	American and British.
Provincial Normal School	100	Hwaiyang, Honan	Chinese.
St. Andrew's College	56	Kaifeng, Honan	Canadian.
Higher Normal School		Changsha, Hunan	Chinese.
Yale College in China	190	do	American.
Griffith John College	160	Hankow, Hupeh	British.
William Nast College	279	Kiukiang, Kiangsi	American.
Fih-tan College	366	Shanghai, Kiangsu	Chinese.
McTyeire High School	289	do	American.
Medhurst College	220	do	British.

Names of schools.	Number of students.	Location.	Nationality.
COLLEGES AND HIGH SCHOOLS—con.			
Shanghai Baptist College and Theological Seminary.	190	Shanghai, Kiangsu	American.
Shanghai Min-Lih School	520	do	Chinese.
St. Ignatius' Roman Catholic College	400	do	French.
Lowrie High School	90	do	American.
St. Mary's Hall	240	do	Do.
Wu Pen Girls' School	200	do	
Kiangsu Provincial College	283	Soochow, Kiangsu	Chinese.
Laura Haygood High School	105	do	American.
Ellis Kadoorie College	300	Canton, Kwangtung	
Kwangtung College	80	do	
Queen's College	700	Hongkong	British.
Hongkong College		do	Do.
Canton Christian College		Canton, Kwangtung	
St. Stephen's Girls' College	170	Hongkong	Do.
Anglo-Chinese College	115	Swatow, Kwangtung	Do.
PROFESSIONAL AND TECHNICAL SCHOOLS.			
Medical Training College	56	Hangchow, Chekiang	
North China Union Medical College for Women.		Peking, Chihli	American.
Union Medical College	23	do	American and British.
Army Medical College	310	Tientsin, Chihli	Chinese.
Peiyang Medical College	300	do	Do.
Union Medical College (merged in Shantung Christian University).		Hankow, Hupeh	British.
Women's Medical College	10	Soochow, Kiangsu	American.
Hacket Medical College for Women		Canton, Kwangtung	Do.
Medical College	66	Mukden, Manchuria	British.
Union Medical College		Tsinan, Shantung	American and British.
Government Engineering College	170	Tangshan, Chihli	Chinese.
Van Kirk Women's Industrial School	75	Foochow, Fukien	
Honan Agricultural College	140	Kaifeng, Honan	Do.
Government Institute of Technology	600	Shanghai, Kiangsu	Chinese (United States instruction).
Nanyang Railway and Mining College	300	do	Chinese.
Industrial College		Canton, Kwangtung	
Technical Institute	600	Hongkong	
School of Agriculture	481	Yunnanfu, Yunnan	Do.
Government College of Law		Peking, Chihli	Do.
Government Agricultural College		do	Do.

CHINESE STUDENTS IN THE UNITED STATES.

By Commercial Attaché Julean Arnold.

China is the most populous of Asiatic nations; its trade offers more opportunities than does that of any of the other Far Eastern countries. It is now at the threshold of modern industrialism. Its 6,500 miles of railways must expand to 250,000 miles if it would have a mileage equal to that of the United States; it has a territory one-quarter again as great. Its cotton spindles must increase from 1,500,000 to 50,000,000, its looms from 5,000 to 800,000, and its textile-mill operatives from 20,000 to several million to equal those of England, which is poorer in potentialities in this industry than is China. Its cotton must increase from 2,500,000 to 12,000,000 bales to equal the United States, yet it has the land and labor necessary for this increase. The output of its coal mines must expand from 15,000,000 tons a year to 700,000,000 tons and its pig iron from 300,000 to 30,000,000 tons to equal the production of the United States, which is probably poorer in coal and iron resources than is China. The number of its factory employees must increase from less than 100,000 to 40,000,000 and its children under public instruction from 4,000,000 to 80,000,000 to be proportionate with the figures for the United States.

In fact, China has, during the next few decades, to be made over—rebuilt, as it were. It is difficult for the human mind to conceive the extent of the developments that must take place in China during that process, so tremendous must those developments be. The Chinese people are now receptive and desirous of embracing all that the West has to offer; thus one may say that the country is at the threshold of a renaissance which within a few decades will have transformed it into a society entirely different from that which exists to-day. The extent to which American standards and ideals find a place in the New China will depend in a large measure upon the interest that Americans now take in furthering their relations with the people of their sister Pacific Republic. The United States already has an advantage, in that its relations with China during the entire stretch of its history have been such as to command the admiration, respect, and friendship of the Chinese people.

No single act on the part of any nation in its relations with China has resulted in winning the friendship of the Chinese to such a degree as the return of a substantial portion of the Boxer indemnity by the United States Government. This indemnity, although cut down in the beginning to cover only the actual losses suffered by American citizens and the cost of the military expedition, was finally made to cover only the former item, and $11,000,000 was remitted to China. No concessions were exacted from China in the return of this indemnity, but China agreed upon the suggestion of the United States that a portion of this money should be used to educate a certain number of Chinese students in the United States, hoping thereby to aid in bringing the Chinese to a better understanding of western civilization.

The following results may be expected from the education of a considerable number of Chinese students in the United States:

(1) By their acquisition of the English language (a fair knowledge of which they obtain before coming to America, with the object of using it in completing their education in the United States) and their familiarity with American literature as a result of their years of study in the United States, they will carry with them through life a better understanding of America and things American and are certain to be of service, after their return to China, in spreading the gospel of American ideas and ideals.

(2) Through their close contact with American life, thought, customs, and practices, they are likely to return to China prepared to translate the results of this contact into action in a way helpful both to China and the United States.

(3) Because of their familiarity with American engineering, technical, scientific, legal, and commercial methods, as well as by their contact with and knowledge of American machinery and materials, they will, after their return to China, be inclined to favor these, as well as American measurements and standards generally.

(4) By their contact with American democratic ideas and the American administrative system, they will be very useful to their country after their return in helping to solve the problems that will confront China in building up an effective representative constitutional government.

(5) Probably the most beneficial effect of the presence of a large number of these students scattered throughout the United States will come with the missionary work incidentally done by them in the way of giving to the American people a better knowledge of China and the Chinese people. The American students with whom they associate are at the impressionable years of their lives, and these Chinese, selected from among the best families in China and representative to a considerable degree of the best that China has to offer, can not but be helpful in giving the American students, and the members of the American families in whose homes they may spend their college days, a fairer and better knowledge of the Chinese people than it would be possible to gain through other avenues existing in America for the acquirement of such knowledge. Mutual friendships are certain to be formed during these years that will go far in the future to further the relations between the two peoples.

(6) The relations between China and the United States, the two great Pacific Republics, should, by virtue of the education of these Chinese students in the United States, become more intelligent and more friendly, tending to prevent friction, misunderstandings, or prejudices arising from lack of knowledge.

Americans would be shortsighted and even careless if they did no more than make it known to Chinese students that they are welcome to educational institutions in the United States. Having invited them to this country to continue their education here in full appreciation of the advantages that will redound to the peoples of the two countries through such action, Americans should assume such an attitude toward these students and provide such facilities as will best effect the purposes that their presence here is expected to accomplish.

First, due care should be exercised at the port of entrance to see that every facility is accorded them, so as not to subject them to treatment that might rightly be cause for adverse criticism. Facilities have been created for their examination and for the issuance in China of certificates of admission. This entire work of examination at the port of embarkation in China, as well as the port of admission, should be intrusted to men known to be fair-minded and considerate in their attitude toward Chinese. Irreparable damage can be done by narrow-minded and prejudiced individuals when intrusted with the examination of these students for admission into the United States.

Second, every assistance should be accorded the students in their choice of colleges and courses of study and in the securing for them of congenial living quarters, preferably with American families, where they may come into contact with and learn to know the American home. This latter consideration is particularly important in the attention given to Chinese women students, who are coming over in larger numbers every year and upon whom rests a great responsibility in building up the new social order in China.

Third, opportunities should be accorded all Chinese students of engineering and technical schools for practical field and factory work during their vacations and for some time after their graduation.

This last is the most important phase of the Chinese students' training in the United States. A student who returns to China without this supplementary training is sadly handicapped, for China in its present undeveloped stage offers very few opportunities for this supplementary training, and, furthermore, the present social conditions in China, which discourage manual labor on the part of educated men, make it extremely difficult for a man who has had no practical experience in the United States to come back to China and engage in work involving manual labor. Moreover, it is in the practical work that these engineering and technical students come best to understand and to know American machinery, standards, measurements, and materials, and with this practical training they are more likely to recommend and continue such use after their return to China than would be the case if they had not had this added training.

Recently France has provided for the training of from 500 to 1,000 Chinese in French industrial plants, so that they may become acquainted with (and favorably inclined toward) French machinery, materials, standards, and methods.

The total number of Chinese students in the United States at present (September, 1918) is 1,250, about 400 of whom are supported from the returned Boxer indemnity funds. Probably about 100 are supported by various Provinces in China. Some are maintained on scholarships issued by American missionary educational institutions in China, and a considerable number are supported by family funds.

American manufacturers and commercial organizations would do well to provide for special scholarships or special facilities for the training of certain selected Chinese students in the United States.

The effect of the training of a considerable number of Chinese students in the United States, if such training is conducted in the proper spirit and under intelligent direction, can not but be helpful in a large way to the mutual interests of the American and Chinese peoples. It should be encouraged in every possible way.

AMERICAN MISSIONARY WORK IN CHINA.

By Rev. Frank Rawlinson, M.A., D.D., Editor of the Chinese Recorder.

GENERAL ESTIMATE OF AMERICA'S CONTRIBUTION.

With the opening up of international intercourse there has developed on the part of the United States an altruistic attitude toward China that is very significant. This attitude of friendly helpfulness began when on February 25, 1830, two American missionaries, representing two societies in the United States, landed in Canton. At that time foreigners had only an uncertain foothold in China; now they are found everywhere in the country. These pioneers of American altruism in China came expecting to do one kind of work—the evangelistic—though the Rev. E. C. Bridgman, one of the two, did considerable literary work and helped to negotiate the American treaty with China. In the course of 86 years the number of such missionaries has increased from 2 to more than 2,858, representing about 64 American missionary societies and institutions. The uncertain foothold in one Province has changed to a participation in work in all Provinces, American missionary forces being, however, somewhat weaker in northwestern and southwestern China than in other parts, having only one station each in Kweichow and Yunnan. Americans are already working in Tibet.

At present American missionary forces in China constitute a little less than half of the entire missionary body. Included therein are 231 American medical workers—doctors and nurses. Open doors in China and opportunities for missionary responsibility have increased together, with the result that every possible type of work that man may carry on for the good of his fellow man is now being undertaken in some measure by American missionaries; they now appeal to and influence every phase of Chinese life and every class of Chinese citizen. Not infrequently their advice has been asked and given in important political crises. The total amount of money invested by Americans in philanthropic and religious work in China has not yet been accurately computed. Some idea, however, of the annual gift of Americans to mission work in China can be gathered by putting together the funds sent to China by the two Presbyterian Missions, Northern and Southern; the two Methodist Missions, Northern and Southern; the two Baptist Missions, Northern and Southern; the American Church Mission; the Young Men's and Young Women's Christian Associations; the American Bible Society; the China Medical Board (in 1916, exclusive of home administration, $372,784); and a large number of smaller gifts—which totaled, for the most recent fiscal year, approximately $3,572,780. These funds were sent out principally for the carrying on of the regular work; they represent only a few of the societies and include only a portion of the special gifts. A considerable number of the schools raise funds outside the regular channels of the boards. The gifts of all the remaining American societies would have to be added to tell the whole story in detail. The gifts made since Americans started work in China, though not yet computed, are evidence of the commanding influence of Christian altruism in the United States. The actual extent and amount of influence and fruitage in character and ideals resulting from the work carried on through these gifts is still farther beyond the reach of computation. The material equipment alone represents not only a large investment of funds but an unweighed outlay of sacrifice; each mission building is an incontrovertible testimony to American good will, each missionary is a voice for democracy and a living witness to the working power of the ideal of world-brotherhood.

SHARE OF AMERICAN MISSIONARIES IN ORGANIZATION OF WORK.

Two years ago the eight leading American missionary societies were as follows, in the order of the size of the foreign staff (the order is probably the same now):

1. American Presbyterian Mission, North.
2. Methodist Episcopal Mission, North.
3. American Baptist Foreign Missionary Society.
4. American Church Mission.
5. Young Men's Christian Association.
6. Southern Baptist Convention.
7. American Board of Commissioners for Foreign Missions.
8. American Presbyterian Mission, South.

One significant feature of American missionary work in China is the amount of executive responsibility that has been laid upon the missionaries. The present staff of the following international and interdenominational organizations, which, with one exception, are working along various lines for the interests of China as a whole, is American:

1. Canton Medical Missionary Association.
2. United Society of Christian Endeavor for China.
3. China Sunday School Union.
4. China Medical Missionary Association.
5. China Christian Educational Association.
6. China Continuation Committee.

The Associated Mission Treasurers in Shanghai (representing five large American missions and one British mission), an organization that handles at present considerably more than two and a quarter million dollars a year, was inaugurated by Americans, and with one exception the staff is American. This is a type of mission work that is also national in scope and rapidly growing in importance.

In this connection mention must be made of training schools for missionaries. There are at present in China, in addition to the two schools for the training of its missionaries conducted by the China Inland Mission, four training schools for the benefit of missionaries in general. The directors of these are Americans. Those at Nanking and Peking are the largest, and are under the direction of Americans who have had special training for this task.

Reference must be made also to mission journalism. There are five publications issued in English in the special interests of the general missionary body; these are the China Mission Year Book, the Chinese Recorder, the Educational Review, the China Medical Journal, and the China Sunday School Journal. These are at present edited by Americans.

One other special type of mission work must not be overlooked. Seventeen years ago the "Door of Hope," a place of refuge for the female slaves of vice, was started in Shanghai by Miss Cornelia Bonnell, an American.

The above facts indicate that American representatives of Christianity in China have had a large share in the task of organizing mission work there. They are thus exerting an influence which, at the time when democratic principles are coming to the forefront throughout the whole world, is especially significant.

YOUNG MEN'S AND YOUNG WOMEN'S CHRISTIAN ASSOCIATIONS.

There are two organizations that are both international and interdenominational in sympathies and activities and that work for the interests of China as a whole; they are the Young Men's Christian Association and the Young Women's Christian Association. The foreign staff of these organizations numbers about 126, of whom 85 per cent are Americans. The work for men, which began in London in 1895, is carried on in 14 Provinces and 28 cities; that for women started in 1903 and is carried on in 12 Provinces and 37 cities. More than half a million dollars has already been expended by Americans on Association buildings in China. These two organizations are at present making an approximate annual gift to China of $426,625. The main work of these organizations, being among the young and largely among students, is that of training coming leaders. Indeed, in general the work is a training school of large proportions and varied activities. The influence upon students is significant, there being 67 Student Associations for young Chinese women and 143 for men. A large part of the work is directly educational; for instance, there are now more than 1,050 students in the various educational departments of the Shanghai Men's Association, which therefore has the largest enrollment of any single institution under Western auspices in China. This Association has also the second largest boys' branch in the world.

In addition to its regular work, the Young Women's Christian Association aims to get hold of that class of women and girls whose social position leaves them with a large amount of leisure. The Young Men's Christian Association has made a large and special contribution through its lecture department to the popularizing of scientific ideals, and through its physical-culture department to the promotion of ideals of physical activity on the part of Chinese students that are radically different from those considered fitting 20 years ago. These organizations have been specially successful in the response to their appeal on the part of the Chinese in both the giving of land for buildings and the support of the work, for in addition to the support of local work, exclusive of the salaries of foreign secretaries, the Chinese have assisted in the support of the national work to the extent of one-half its expenses. These organizations are doing much to help the Chinese to understand how to apply Christian principles to daily practical needs of mental, social, and religious life.

Brief reference will now be made to the part that Americans have taken in the special departments of mission work connected with (1) the production of literature, (2) the cure of the body, (3) church work, and (4) education.

PRODUCTION OF MISSIONARY LITERATURE.

While they have not had the lead in literary work, which indeed belongs to British missionaries, they have nevertheless been active in the use of the pen and the publication of good literature. In this connection the names of S. Wells Williams, W. A. P. Martin, Y. J. Allen, J. M. W. Farnham, C. W. Mateer, H. Blodgett, C. Goodrich, D. Z. Sheffield, and others are prominent. For the publication of literature there are maintained six presses, of which the oldest and largest are the Methodist Publishing House, the China Baptist Publication Society, and the Presbyterian Mission Press. The two last-mentioned presses issued in 1917 one hundred million pages of special missionary literature. Probably about one-half of the Christian literature published in China is brought out under American auspices. The largest union literature-distributing agency in China is the Mission Book Co., which is American in organization, though it endeavors to serve all interests in China so far as is desired.

Last but not least, mention must be made of the American Bible Society in China. This society had, up to 1915 (its eighty-third year of service), published the Bible for use in China, in whole or in part, in seventeen languages and dialects, assisted in preparing two other versions of the Bible, spent for the Chinese people $1,336,651, and distributed as a result thereof 20,916,061 copies of the Bible and portions.

The above efforts represent, of course, only a good beginning in the task of providing literature for a people whose nature, genius, and interest are in that direction. At present the number of Americans devoting time and thought to the production of needed literature is lamentably small.

Another contribution in this connection that must not be overlooked is the part played by the mission presses, and especially the Presbyterian Mission Press, in training men who are now taking hold of China's problem of producing literature in a modern way. The Commercial Press at Shanghai, the largest publishing establishment in China, has on its staff many who served their apprenticeship and received their training in the Presbyterian Mission Press. This is a by-product that is none the less valuable because it is sometimes overlooked.

In addition, several magazines published in China in connection with American mission work are assisting in the discovery, stimulation, and training of Chinese writers. The Chinese Christian Intelligencer, published in connection with American Presbyterian work, with a circulation among all classes of about 7,000, has taken a prominent part in this work.

MEDICAL WORK.

In the practical helpfulness shown in medical work, one must state, while not overlooking the large amount of quiet foundation work done by others, that Americans have played a special part; their 310 medical workers now in China represent a large majority of American missionary societies and constitute about one-half of the medical staff in China. They conduct 204 hospitals and 129 dispensaries. In 1917 they treated 1,016,746 patients—an army of friends won through friendliness. In many ways they are doing much to improve living conditions and create new ideals of sanitation and hygiene; in this connection the Young Men's Christian Association, through its scientific department and the work of Dr. Peter, has taken a leading part. Through this contingent of medical workers America's helping hand brings hope to those who were hopeless, relief to those enthralled by serious and hideous blights, and care to those uncared for.

This comparatively small group—about 10 per cent of the total American missionary staff in China—has faced limitless tasks, the strain of attempting to meet which has been tremendously increased by the necessity of working with altogether inadequate equipment. A welcome change in the conditions and ideals of medical missionary work in China has now set in. The claim of medical work to adequate support is undeniable. It helps to create that mutual confidence which alone can bring about the spirit of world brotherhood now being so earnestly sought. The outstanding event in medical work in China is the organization of the China Medical Board, an outgrowth of the Rockefeller Foundation. This board is establishing two medical schools, one in Peking, the other in Shanghai (the plant in each case to cost about $1,000,000 and is using about $500,000 a year for upkeep—an amount equal to the income of some of the smaller boards. In addition, much help will be given to hospitals and general medical work. The establishment of these model schools will bring about a rise of standards and conditions in medical education and work that will set the norm of such work in China for many years to come; indirectly it will affect the standards of education in general in so far as such education must prepare students for medical training. The China Medical Board had a free field in deciding either to work independently or to cooperate with the Chinese Government or with the missions. After long consideration the die was cast in favor of cooperating with the missions; hence the board of trustees of both the Peking and the Shanghai School includes mission representatives.

It is interesting to recall that the first regular Protestant medical missionary to China was an American, Dr. Peter Parker, who arrived in Canton in 1834. He opened the first medical missionary hospital and, with another American, the Rev. E. C. Bridgman (one of the first two American missionaries to arrive in China), took the largest share in the organization of the first medical missionary society in China. It is thus eminently fitting that the greatest contribution toward the medical salvation of China should have come from the United States. It was as a result of the earnest solicitation of an American merchant in Canton, Mr. D. W. C. Olyphant, that the American people began mission work in China. It is an American business man who has made the largest contribution thus far toward meeting the medical or general needs of China.

CHARACTER AND INFLUENCE OF CHURCH WORK.

Through church work also Americans are influencing the Chinese vitally. Of the Christian constituency in the churches scattered all over China, slightly less than 50 per cent are under American leadership. Of these, 144,039 were in 1916 actual communicants, the nucleus of a total Christian community of about 295,671 people influenced by American ideals of church work and life. Of the missionaries confining themselves to work in connection with churches, there are more European or British workers, by reason of the larger number of these in the leading mission in China, the China Inland Mission. However, in general provincial and national evangelistic campaigns American missionaries have taken a prominent part. In Fukien, the leading Province as regards Christian occupation, the provincial evangelistic work (to a large extent responsible for Fukien's leadership in successful Christian work) was under the control of a committee whose chairman and two secretaries were members of American missionary societies. The National Evangelistic Secretary of the China Continuation Committee—a unique position—is Dr. A. L. Warnshuis, an American, the function of his office being the coordination of the various evangelistic movements throughout China.

During recent years there have been a number of extensive campaigns to reach Chinese students and leaders in thought and life. The setting up of these campaigns and a large part of the work done therein has been carried out by Americans. Some of the outstanding speakers—Dr. John R Mott, Dr. Sherwood Eddy—are American leaders in religious work, and some of the most effective Chinese speakers—Dr. C. T. Wang, Dr. C. W. Ping—have been trained in universities in the United States. These campaigns did much to give Christianity a recognized position in the life of the Chinese people. Some of the highest officials in the land were included among those who attended the meetings and who cooperated in arranging for and conducting them. These campaigns helped to bring home to the Chinese people the fact that Christianity has a message affecting their national life. Furthermore, they did much to start a movement among the classes in China from whom political and social leadership has heretofore come, thus bringing about a union of all phases of Chinese life with the work of the Christian church and strengthening enormously its possibilities of leadership. Rev. Ding Li-mei, a noted leader in winning men to the Christian ministry, was trained in an institution that at that time was under American auspices. Thus American missionaries have taken a significant and outstanding part in winning for Christianity a recognition as one of the vital forces making for the upbuilding of China. Hence Christianity is now one of China's national movements and interests, with an influence far beyond its numerical strength.

IMPORTANCE OF AMERICAN EDUCATIONAL ACTIVITIES.

In educational work, speaking generally, a somewhat larger contribution has been made to the Chinese people by Americans than in any other form of work. It is impracticable in the present article to speak of the work done by missionaries from other countries, either in connection with education or other branches of work. But, before discussing the American activities, one should mention the fact that one of the most interesting pieces of work in education is being done by the Central China Educational Association, which is managed by Britishers and largely controlled by British educational ideals.

All of the large American missionary societies are represented in the educational work carried on in China by Americans. About

60 per cent of all the students in mission schools are in institutions supported by Americans. In 1916 the Americans were actually training 112,386 pupils, of whom two-thirds were boys. They maintain for this purpose more than 4,000 schools, which include 14 institutions ranked as colleges, in addition to 10 union institutions, of which 4 rank as universities. Besides this, Americans participate in about 10 other union institutions. American missionary educational work is strongest in East China, North China, and South China, in the order named. The actual value of these educational plants and the total amount of money contributed for their support has never yet been actually computed. Some idea, however, can be obtained from the fact that about two years ago the aggregate value of the plants and equipment of only 5 of the more than 4,000 institutions under American auspices—namely, Canton Christian College, Shanghai Baptist College, St. John's University, Nanking University, and Shantung Christian University—was considerably more than a million and a half dollars; these institutions were also receiving approximately $100,000 a year as subsidy. Coupled with that part of the Boxer indemnity remitted in 1908 by the United States, the sum total in staff and funds put into educational work in China is a factor in the promotion of civilization that can hardly be overestimated. It stands out among the gifts made by men primarily for the good of their fellows; it signifies a sincere attempt to give China a chance.

But the part that the United States is taking in molding, through education, the coming life of China is not yet all told. In a recent census of returned students in Peking, published in the Far Eastern Review, it was found that while by far the larger part came from Japan, yet next to Japan stood the United States. While these returned students are not yet of sufficient strength to stem the tide of reaction altogether, they are still much in evidence in the managemen of important affairs. Among outstanding leaders trained in American mission colleges the following list of prominent alumni of St. John's College, Shanghai, is significant: Wellington Koo, the present Chinese Minister to the United States: Alfred Sze, Chinese Minister to London; W. W. Yen, formerly Chinese Minister to Berlin; Dr. Y. T. Tsur, formerly president of Tsinghua College; Z. T. K. Woo, superintendent of the Hanyang Iron and Steel Works; S. C. Chu, LL. B., general secretary of the Shanghai-Nanking Railway; Dr. H. L. Yen, secretary of the Board of Foreign Affairs; David Z. T. Yui, M. A., general secretary of the Y. M. C. A.; Mr. Yen Fu-ch'ing, dean of the medical faculty, Yale College, Changsha; W. Y. Hu, M. A., justice of the Supreme Court of Appeals, Peking.

These are examples of the leadership that Americans are helping to train in mission colleges in China. Dr. C. T. Wang, the first vice president of the first congress in China, is also a graduate of an American university. He and those mentioned above, and many others, are active, progressive factors in present-day China. They are in the advance guard of the new China.

Apart from the regular work of mission schools carried on by American missionary societies, American universities have established practical fraternal relationships with Chinese youth. Only brief mention can be made of these, but that is significant. Yale is supporting an educational work at Changsha, Hunan, a city formerly noted for its anti-foreign spirit; its medical school alone is costing $75,000 a year, and it has a hospital that cost $175,000 to build. Harvard for a time conducted a medical work in Shanghai, which is now being merged in the larger plans of the China Medical Board. The University of Pennsylvania is assisting in a medical department in St. John's University, Shanghai. Last year Columbia supported a man at the Shanghai Baptist College. Teachers College is responsible for a chair in Canton Christian College; to raise funds for this there was given in 1917 a huge pageant. It is interesting to note that this one institution is assisted directly by six colleges in the United States. Oberlin is practically interested in schools in Shensi and is represented by Dr. H. H. K'ung, a lineal descendant of Confucius. Princeton has taken a large part in the life of Peking through the Young Men's Christian Association that its alumni established there. Smith College is taking a direct interest in Ginling College for Women in Nanking. Brown University is assisting in the work of one of its graduates at the Shanghai Baptist College and is planning to take a larger share in promoting his work along sociological lines. These and other instances are indicative of the alert interest of American students in the needs of Chinese youth and of a determination to help equalize the opportunities of China's future leaders for an adequate preparation for their task.

In religious education, as represented in the Sunday-school work reported, there are more Sunday schools in connection with the work of American missionaries than with that of others.

American educational ideals are prominent among the influences helping to lay the foundations for a new China. American missionary educationists were the first to recognize the extreme importance of leading Chinese students to see the bearing of modern science upon the economic and social as well as moral and religious life of the people. Through its missionary representatives the United States has taken the lead in higher education for men and women. As a special contribution to the higher education of women, in addition to Ginling College at Nanking, two other influential institutions for women must be specially mentioned, the one at Peking and the other at Foochow. American educationists have also taken a noteworthy part in helping to develop forestry and industrial education, as witness the School of Agriculture and Forestry at Nanking University, the agricultural department of Canton Christian College, and some small, but practical, attempts to develop industrial education.

The Young Men's Christian Association was the first to promote intercollegiate athletic contests, which have done so much to change the ideas of Chinese students with regard to physical culture and to bind colleges together in larger sympathy. Thus those who represent a nation that emphasizes education as an essential factor in making democracy work are practically demonstrating their belief by assisting one of the latest aspirants to democracy to steer straight in educational matters.

WORK IN CONNECTION WITH FAMINE RELIEF.

The practical interest of America in China has broadened until it is as wide as human needs; hence in famine-relief work in the country Americans have taken a large part. This is true missionary work. For this they made generous gifts in 1907, 1910–11, and 1912.

The responsibility for this work fell heavily upon Americans. The chairmen of the 1910–11 and the 1912 committees were Americans, as were also the foreign general secretaries. The larger part of the missionaries actually engaged in relief work came from the United States. Later it was American enterprise that promoted the attempt to prevent future famines in the famine regions of northern Anhwei and northern Kiangsu—an attempt that finally led the American Red Cross Society to send a commission to China whose work resulted in steps being taken for the conservancy of the Grand Canal and the Hwai River. The American Red Cross is now helping China finance the new Tientsin-Peking highway, which is being built as a flood relief measure.

SIGNIFICANCE OF AMERICAN INTEREST AND AID.

The part that the United States has played in helping China to prepare for the new world that is coming can not be judged by a study of statistics alone. The funds given can not yet be accurately computed; the number of workers, though more easily summed up, will not tell all the tale. Much that Americans have been doing has been possible through the unheralded work of others, whose work has not been dealt with in this article. Nevertheless, the above facts indicate a special contribution in initiative and organization that can not be overlooked. This prominence of Americans in positions of executive responsibility does not necessarily mean predominance in the work as a whole; yet their contribution to the organization of mission work in China is distinct and noteworthy. This condition is due in large part to a greater freedom from tradition and precedent, which allows greater scope for the play of the imagination with regard to the use of resources (always pitiably inadequate in themselves) and hence a quicker response with new solutions to old problems. As a group it is possibly true that American missionaries have found it easier to establish new norms of mission work and to use new solutions in accordance with the new norms they have initiated. They have also been prominent in promoting cooperation in planning, in which they have been able to secure the confidence of enough of the entire missionary body to enable them to make it effective, and, having been placed in all sorts of positions of responsibility, they have been able to take a large part in promoting a more effective organization of the forces and resources of mission work in China. This prominence in various lines of executive responsibility is born not of any imperative desire to control, but of a measure of greater ease in adaptability and a thoroughly democratic desire to serve.

The entire work of American missions in China is thus a service of brotherhood and democracy. It means that Americans are willingly sharing their best with the world. It is the expression of an impulse of good will which finds its greatest satisfaction in what it does, and thinks little, if at all, of any returns to those directly responsible for its expression. The executive responsibilities that have fallen upon American missionaries are a clear call to Americans for larger support. The pace set in American missionary work must be maintained; indeed, it must be increased if Americans are to do their part in helping China, in keeping with the enlarging prosperity and ideals of their homeland.

LABOR AND LIVING CONDITIONS IN CHINA.

By Commercial Attaché Julean Arnold.

INTRODUCTION.

China offers a splendid field of opportunity for manufacturing, as it possesses great stores of cheap raw materials, plentiful cheap labor, and a big market for the manufactured products. The country is just embarking upon an era of modern industrialism, and labor is being trained for factory work. What a small advance China has made in modern industrialism may be surmised when it is stated that the country is still without factory or child-labor laws. Whether or not it will profit by the experiences of the West and accord labor the consideration to which it is entitled, and which, in the long run, is helpful both to employer and employee, remains to be seen.

Chinese cotton mills are paying 20 to 25 per cent dividends. One concern has paid an average of 20 per cent a year for the past 12 years and some companies are said to have done even better. A perusal of the material in this handbook descriptive of industrial conditions in China and of industrial plants will give the reader some idea of the vast opportunities that are now open to foreign capital and enterprise in manufacturing in China. It must be borne in mind that foreigners (non-Chinese) are privileged to secure land, erect manufacturing plants, and operate them in the treaty ports of China. By virtue of extraterritorial rights, foreigners and foreign enterprises are not subject to the jurisdiction of the laws and courts of China (see p. 42). The conditions surrounding foreign participation in manufacturing enterprise in China are particularly favorable, and the subject is one deserving the attention of American capital and American industrial leaders.

In describing in this chapter the cost of labor and living in China, the currency units used are the Mexican dollar, the subsidiary silver coins, and the brass cash. The average value of the Mexican dollar, during the 20 years preceding the outbreak of the war, was about $0.43 United States gold. At present—October, 1919—the Mexican dollar is quoted at $0.88 gold. Subsidiary silver coins in China exchange at from 11 to 12 dimes to the Mexican dollar. Brass cash exchange at the average of 100 to 8 Mexican dollar cents. The values as given below are those in the currency of China. They have not been reduced to the American equivalents on account of the great variations in exchange—ranging, during the past few years, from $1 Mex.=$0.40 to $0.88 United States gold, or, to reverse the equation, from $1 gold=$2.50 Mex. to $1.14 Mex. In the valuations given, the following conversion rates may be used: $1 Mex.=$1.15 in small or subsidiary silver coins, and $1 Mex.=1,300 cash. Where fractions of a dollar are given, subsidiary silver coins are meant. Where cash is mentioned, brass cash are meant, at the conversion rate of 1,300=$1 Mex.

WAGES OF CHINESE.

UNSKILLED LABORERS.

Household servants in Shanghai are paid at the rate of $6 to $10 a month for coolies and $9 to $18 for head servants, without food, for those in the employ of foreigners, presupposing a knowledge of a certain amount of English on the part of the head servants. Chinese households pay about $5 a month for coolies and $9 for head servants, with food and lodging.

Coolies in office employ of foreigners receive $8 to $10 a month, without food or lodging. Such a coolie serves as a combination of janitor and messenger. Those in the employ of Chinese firms receive about $5 a month, with food and lodging.

Factory coolies receive about 25 cents a day without food or lodging. They carry ordinary weights or loads and work from 7 a. m. to 6 p. m., with time off for luncheon. Overseers receive from 40 to 50 cents per day, without food or lodging.

Factory coolies employed at cotton mills and silk filatures, to carry heavy weights, receive from 40 to 50 cents a day, without food or lodging, and work from 6 a. m. to 6.30 p. m., with time off for luncheon.

Public-works coolies, in the International Settlement at Shanghai, receive from 280 to 320 cash per day, without food or lodging.

Coolies for pulling jinrikishas are paid $10 to $13 a month, without food or lodging, for those in the employ of foreigners, and about $5 a month, with board and lodging, for those working for Chinese.

Public jinrikisha coolies, wheelbarrow coolies, handcart coolies, and wharf coolies, on hire, make 30 to 80 cents a day, depending on the strength of the coolie.

In the interior sections of China—that is, away from the principal commercial centers—labor can be obtained at about 30 per cent less than the prices above given.

Women and children workers, unskilled, receive in factories 10 to 25 cents a day, working 11 to 13 hours a day.

SKILLED LABORERS.

Carpenters earn $0.35 a day with food or $0.50 a day without food. For very ordinary work, requiring little skill, $10 a month is paid. One who has just completed apprenticeship can often be obtained for $6 a month. In both these cases food and lodging must be furnished in addition to pay. A skilled carpenter or a boss carpenter commands $15 to $25, with board and lodging. Those in the employ of foreigners receive more. The best are paid $0.75 a day, with a few commanding as much as $1 a day. Twenty-five dollars a month is paid for a good carpenter and as low as $12 for a very ordinary one. Those working for foreigners must, however, provide their own food and lodging. It requires three Chinese carpenters to do the work of one good American carpenter, although the Chinese carpenter works 10 to 12 hours a day.

Masons receive $1 for three days' work with food, or $0.40 to $0.70 a day without food.

Blacksmiths usually get about $15 a month, but those in foreign employ, if skilled, make as much as $25 to $40 a month. In Chinese employ, the ordinary blacksmith gets $10 to $12 a month with food.

Locomotive engineers receive $45 to $50 a month. Dockyard engineers command about the same. Beginners who have had some training can start at Shanghai on $30. Laborers who understand engineering work and are employed in iron foundries, dockyards, etc., get $18 to $35 a month. College-educated Chinese occupying important positions with railway companies, dockyards, and engineering works are paid salaries ranging from $100 to $400 per month. The supply of these is limited; hence the salaries paid are high. Chinese draftsmen get $35 to $75 a month.

Ordinary Chinese clerks, in foreign employ, receive $15 to $25 a month, with advances of $2 to $5 a month each year until they receive double the amount stated. Clerks in the large Chinese department stores in Shanghai start on $8 a month, with food, lodging, laundry, and bonus allowances. They are advanced by $2 a month twice a year, if they prove worthy. Most of the experienced clerks receive about $25 a month, but those with better than ordinary education command $50 to $70 a month. The bookkeepers in these stores receive $25 a month.

Clerks in ordinary Chinese shops are paid salaries ranging from $2 to $16 a month, with board and lodging, while managers of these small shops are paid $25 to $30 a month, with board and lodging. The employees also receive bonuses on the following customary basis: The year's net gains are divided into 16 equal parts or shares; the manager receives one share, the sub-manager and accountant get, between them, one share, the other employees receive one or two shares, divided between them at the discretion of the proprietor, and the remainder goes to the proprietor.

Chinese clerks in foreign employ, who have an education in English and are able to do typing and bookkeeping, command salaries ranging from $40 to $100 a month, depending on their experience and ability. There are but few good Chinese stenographers. They can command salaries ranging from $100 to $150 a month, if good. American stenographers in Shanghai command salaries as high as $300 a month. (The prices above quoted are in Mexican silver dollars, which *in normal times* exchange at $2 Mex.=$1 gold.)

COST OF FOOD FOR CHINESE.

If coolies eat in their own households, the cost of their food per month is about $4, for three meals per day. In the interior, away from the great commercial centers, food is about 30 per cent cheaper, and in West China as much as 50 per cent cheaper.

The Shanghai coolie, who works hard, spends each day for food: Breakfast, 40 cash; luncheon, 80 cash; supper, 80 cash; total 200 cash; 5 cash must be added for tips (1,300 cash equal $1 Mexican silver, or, at prewar rates, about $0.45 United States gold). The food of the day laborer at Shanghai consists of the following, at the rates given: First bowl of prepared rice, 20 cash; second bowl of prepared rice, 16 cash; third bowl of prepared rice, 16 cash; two plates of plain vegetables, 32 cash; one dish of soup, vermicelli, and broth, 32 cash; tip, 5 cash; total, 121 cash. This is the principal meal and that of a hard-working coolie. Some take less, spending about 90 cash.

The cotton-mill and filature laborers usually contract for their food at the rate of $4 a month for the two main meals or $4.50 for the three meals—many, however, eating but two meals.

The cheap boarding houses in Shanghai will give lodgings to single coolies at the rate of 60 cash a night, or $1 a month.

The laborers in north China live on wheat and cereal products and not on rice. They live more cheaply than those in the south. It costs the northern wheat-eating laborer only 10 cents a day for his food, and at this rate they are supposed to have plenty, so far as quantity is concerned. The wheat flour is made into cakes, steamed rolls, and vermicelli. Vegetables are added, with a plentiful supply of sweet potatoes; in fact, sweet potatoes form a great part of the diet of the poorer people throughout China. The northerner also uses kaoliang (sorghum), millet, and bean vermicelli. In the great rice-growing sections of the central Yangtze regions, rice is cheaper than in Shanghai, and laborers there can live on 10 cents a day.

The wives of the factory hands and ordinary day laborers or coolies also work—a very large number of them being employed in factories—and the same is true of their children. The women make about half the wage of the men, although there are many who become quite skilled and make wages equal to those of the men.

The average good, strong, skilled laborer receiving a low wage spends about $6 a month for food in Shanghai and about $4 in the interior. The ordinary laborer or clerk pays about $4 a month, if the meals are obtained in his own household and about $5 a month if they are contracted for outside. It is estimated that the lowest cost for food for a man and his wife and one child in Shanghai, on anything approaching a decent basis, is about $10 a month. In the interior, it would cost 20 to 30 per cent less. Thousands live on even less through necessity. As a man's income increases, naturally his scale of living is higher, so he eats better and more expensive food.

When we pass from the class of those who are obliged by grim necessity to exist on the minimum of cost for food, it is difficult to estimate the average costs, as people spend for food what they feel they can spare, up to a certain point. There are, however, tens of thousands of merchants in the commercial centers of China who can not afford to live better than the carpenters, masons, and ordinary laborers. As agricultural China is the land of small farms or gardens, so mercantile China is, generally speaking, the land of small shops and hucksters. A small merchant will live on less than $8 a month for food, whereas there are wealthy merchants who spend as much as do any of the foreign households in Shanghai; in fact, the well-to-do Chinese is a high liver and spends lavishly on entertainments, involving numerous 30 to 40 course dinners. A Shanghai Chinese merchant of high standing may eat his mid-day meal down town at the rate of $15 a month, and for this secures six courses. Western food is now becoming popular with Chinese in the large cities, but is poorly prepared by Chinese hotels and is very expensive, averaging $1 a meal.

The Chinese schools of the middle, high-school, and college grades provide dormitories and feed their students. The cost per student ranges from $2 to $4 a month, depending upon the location of the school. Those in the interior, where food is cheap, can feed their pupils on $2 and $3 a month.

CLOTHING AND OTHER LIVING EXPENSES FOR CHINESE.

Following is the approximate cost of clothing per year for house and office coolies:

	Mex.
4 pairs of cotton shoes at $0.55 per pair	$2.20
4 pairs of cotton stockings at $0.32 per pair	1.28
3 suits of cotton jackets and pants at $1.60 per suit	5.00
1 suit of cotton jacket and pants lined with cotton at $4 per suit (lasts two years)	2.00
1 suit of cotton jacket and pants wadded with cotton at $4 per suit (lasts two years)	2.00
1 cotton long gown at $4 (lasts two years)	2.00
1 cap and 1 summer hat	1.00
1 pair leather shoes for wet weather	3.00
1 good paper umbrella	.40
Total	18.88

The above is a conservative estimate of the cost of clothing per year for a coolie who is considered neatly dressed. For those who wear better shoes and more jackets for summer, the cost is more nearly $30 a year, but a thrifty coolie will be able to clothe himself well on $20 or $25 a year.

The cost of the same kind of clothing before the war was between 20 and 30 per cent lower.

The cost of clothing for the day laborer is as follows:

	Mex.
Average 30 pairs straw shoes at 20 cash per pair for a month; in a year they cost 7,200 cash	$5.54
2 suits of second-hand cotton jacket and pants at $0.80 per suit	1.60
1 suit, second-hand jacket lined with cotton	2.00
1 suit, second-hand jacket wadded with cotton	2.00
1 pair cotton shoes for occasional wear	.55
1 pair cotton socks and 1 cap for occasional wear	.50
Total	12.19

Thirty dollars a year is considered a conservative figure for the cost of clothing for skilled laborers and for students, who wear cotton garments. The younger clerks and those of the skilled laborers who can afford to do so will spend as much as $60 a year for clothing, which allows of their wearing silk on special occasions.

In the interior the cost of clothing is naturally much less, as the standards are lower. The farm laborers who receive only $10 to $12 a year in addition to their board and lodging naturally have but little surplus with which to purchase clothing.

In Shanghai, a Chinese family of two adults and a child, to live in anything approaching respectable style, would have to pay, per month, at least the following:

	Mex.
Rent	$4
Food	10
Fuel and light	3
Clothing	5
Other expenses	5
Total	27

The monthly expenses of a good-class Chinese merchant family, or that of an employee on good salary, is estimated as follows:

	Mex.
Rent	$15
Fuel and light	3
One "amah" (woman servant)	3
One jinrikisha coolie and license	7
Food for wife, mother, child, and self, as well as two servants	30
Clothing for family and self	20
Incidental expenses	15
Total	93

The merchant who lives on this scale does very little entertaining.

There is practically no limit to the expenses of a wealthy Chinese family in such centers as Shanghai, Canton, Peking, Hankow, Chengtu, Tientsin, and other large cities of China, and this is especially true in Shanghai. Many of the wealthy Chinese lavish money on their households, on entertaining, and have motor cars and the other luxuries of modern civilization. In the interior, away from the large cities, the Chinese families live on a much lower schedule of expenses, as the opportunities for expensive living are much fewer and there is less wealth.

COST OF LIVING FOR FOREIGNERS RESIDENT IN CHINA.

The greater part of the foreign (Western) population in China is centered in Shanghai, Tientsin, and Hankow. The total is probably no more than 20,000 Europeans and Americans. The mercantile or nonmissionary elements are for the most part engaged in large import and export concerns. They generally consist of college men. The unmarried man should have at the start a salary of at least $2,000 a year gold, or $4,000 Mex., in order to permit him to live as his equals do. The married man with no children should have at least $3,000 gold at the Mexican exchange rate of $2 Mex.=$1 gold.[1] Many of the foreign establishments in China provide living quarters for their foreign help. Arrangements have also to be made for home furloughs for their assistants brought out from Europe or America.

There exists, as is noticeable by a perusal of the above figures, a seemingly unreasonable disparity in the living expenses of the Westerner in China as contrasted with those of the ordinary Chinese.

There is a similar disparity between the living expenses of the well-to-do Chinese and the Chinese laborer. In China, prices are assessed on the basis of the ability to pay. Those who are presumed to have more pay more. Furthermore, rents in the restricted areas set aside for foreign residence are high, as builders and landlords expect far greater returns on their money in China, where usury obtains, than they would in their homelands. Foreigners resident in China have also to expend much for servants and service, which, through lack of such conveniences as are provided in communities in their homelands, are a necessity in the East. Hotel charges in the foreign treaty ports in China seem unreasonably high, considering the cost of labor and food products. This is due, in part, to lack of the patronage that hotels in western commercial centers can command, to poor management, and to demands for greater profits than are customary in the hotel business in the West. In Shanghai, the hotel rates are from $6 to $10 a day on the American plan; with exchange at the present figure, such charges are exorbitant, considering the accommodations and food provided.

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[1] This exchange rate is not applicable to conditions at the present time (Oct. 1, 1919), when the Mex. dollar is worth $0.88 United States currency.

Chinese in Shanghai contend that the cost of living among their people advanced during the past 10 years at least 50 per cent. Even leaving out the question of exchange, living expenses among the foreign communities in China are 50 per cent more than 10 years ago.[1] There is noticeable throughout China, even in the remoter sections, a substantial increase in the cost of living. With the improvement of transportation, the building up of modern industries, and the development of China's wonderful stores of natural resources, prices of labor and cost of living will continue to advance, but it will be many years before the native Chinese laborer is on anything like the level of labor in the West.

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[1] In a report written in the summer of 1919, Consul General Anderson says that, as compared with the pre-war period, "the cost of living in Hongkong has advanced at least 75 per cent in silver, the cost in gold advancing at least 150 per cent."

METHODS OF KEEPING WELL IN CHINA.[1]

Because of the misunderstanding that exists in many parts of the world regarding living conditions for foreigners in China, the executive committee of the American Chamber of Commerce has considered it necessary to issue specific instructions and information on this subject, and it is the wish of the chamber that these matters be given the widest possible distribution, both in China and abroad.

On account of the great number of deaths that have resulted in the American and other foreign communities in Shanghai and other parts of China from smallpox, typhoid, and paratyphoid fever in the last few years, chiefly among new arrivals in China, the American Chamber of Commerce at a meeting of the executive committee voted to send a communication to its members in China and its connections in America, urging that a clause be inserted in all contracts between firms and employees to the effect that one of the imperative conditions of employment be that the employee be vaccinated, inoculated against typhoid, and pass a physical examination at the hands of a competent physician before being finally accepted for service in China. In cases where firms do not use contracts, the chamber urges that a definite understanding to the foregoing effect be made between all employees and firms, before the employee is accepted for the China field.

It has been generally estimated that it costs a company from $1,000 to $2,000 gold to bring a new man to China and fit him for service in this special field. For this reason, and for the higher humanitarian reason involved, it is important that every individual coming out to China for the first time should be instructed in the ordinary rules for keeping well and physically fit in China.

With reasonable care, it is as easy to keep well in China as at home. The practical experience of those who have lived long in China proves that if one is willing to study the conditions in which he is placed and to fit himself wisely into them by adopting a few simple rules of health, it should not be hard to keep well.

In the first place, the new arrival should exercise care in China, as at home, in taking physical risks. Be particularly careful of the food on your first trip inland. Whether on steamer or train or other conveyance eat only thoroughly cooked foods. The head and eyes should not be recklessely exposed to the sun. Do not be misled by the conflicting advice of well-meaning friends you may meet. Some will say you must or must not wear woolen underwear; that you must or must not wear a particular type of sun hat; that you may eat and again that you may not eat certain kinds of food. The wisest course is to have a frank talk with a thoughtful physician, and to adopt as a working hypothesis the rules of health which he suggests. Gradually you will evolve for yourself a set of health rules, sufficient for the ordinary emergencies of your home.

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[1] This chapter is reproduced from a pamphlet issued in Shanghai in July, 1918, by the American Chamber of Commerce of China. The materials are largely a reprint of an article written by E. H. Hume, A. M., M. D., professor of medicine in the Yale Medical College at Changsha, and included in a recent book issued by the Christian Literature Publishing Society, of Shanghai.

NECESSITY OF VACCINATION—AVOIDANCE OF INFECTION.

Be vaccinated early against smallpox and against typhoid and paratyphoid. These diseases are so prevalent in China and the danger of infection is so materially lessened by these simple precautionary measures that it is wrong not to use the protection they afford. Other infectious diseases abound in China, tuberculosis being the most rampant. Against this, nothing avails so much as the general building up of the systematic resistance and the constant breathing of abundant fresh air. Malarial fever and dengue are common in many districts. They are carried to man by mosquitoes, and it is therefore imperative to use mosquito nets on the beds, or better still, to have the entire house screened with wire gauze. Care should be taken to avoid the bites of other insects as well; rat fleas are the transmitters of plague; lice carry typhus; flies, ants, and cockroaches may infect with typhoid; and the list could be prolonged. Frequent bathing and change of underwear afford the surest protection. Chinese are still so uninformed in matters of hygiene that every one should be on his guard in crowded streets and in the presence of coolies to avoid contact with clothing probably contaminated and with the breath of persons who may be infected with disease of the respiratory tract. Flies are bred on filth and should be rigorously kept away from food.

EXERCISE AND SLEEP.

Within reasonable limits and after finding out the health experience of your particular locality, exercise as you would at home. Test without taxing your strength. Even in summer, exercise enough to perspire freely; but do not become exhausted. There is more danger of becoming fat from too little than thin from too much exercise. Go in for that form of exercise which appeals to you, whether it be tennis, cricket, baseball, boating, or walking. For those who have not the time or facilities for the more formal games, the daily recreative walk should be a duty. And there are scarcely any who can not plan for a brief daily period of home calisthenics, taken in sleeping or gymnasium suit. Just these simple measures may make the difference between health and invalidism. Most westerners undoubtedly need more sleep in China than at home. Plan for eight hours as a minimum and for nine whenever you can get it. Thorough ventilation of the sleeping apartments is, if anything, more important in China than at home; many will do well to sleep on a porch or veranda. If you are doing hard mental work, take a short nap—even 15 minutes will do—after the noon meal. You will work better the rest of the day; and in later years this habit will prove most valuable as a means of refreshment after the wearing work of the forenoon.

RULES FOR PREVENTING INDIGESTION.

The newcomer will avoid indigestion by following a few simple rules:

Eat less than in a colder climate,[1] especially of meat. In summer eat plentifully of cooked vegetables, and meat but once a day. Beware of all uncooked food, especially in summer, avoiding all lettuce and other vegetables with whose life history you are not familiar. Uncooked or inadequately cooked meat is frequently the cause of tapeworm infection.

Boil all drinking water and milk.

Eat slowly; chew thoroughly. Keep the teeth well cleaned and regularly inspected by a competent dentist.

Beware of Chinese cooking. It is frequently very rich, and its very tastiness often leads to overindulgence and indigestion.

Control individual irregularities of the digestive system not with medication, but by modifications of the diet. Do not make a habit of adding quantities of salt to your food at meals, as this may easily overtax your kidneys. Intestinal parasites abound, many of them entering the system with the food. It is therefore desirable that a physician should make a microscopic examination occasionally in order to be able to say with certainty whether they are present and, if so, to institute suitable measures for their removal. Vermifuges are usually strong poisons, and it is better not to take them on the mere chance of their being needed but to have a microscopic proof that they are called for.

In a land where malaria is common and other parasites of disease abound, it is essential to keep the heart muscles vigorous and to maintain an adequate supply of good red blood. Nothing will keep the heart muscles so sound as avoidance of excess, in both food and drink, and the provision of sufficient exercise to keep the body muscles in good trim. When these become limp and flabby, or when the body becomes overfat, it is safe to assume that the heart muscle has followed suit. For the patient who has been through an illness or operation the road back to health and vigor seldom lies in medication with pills and tonics, but more often in graduated exercise or massage and a suitable dietary.

FRESH AIR AND PURE WATER.

Modern nose and throat specialists tell us that while we give much and deserved attention to the teeth, we practically neglect to clean with regularity the upper part of the respiratory tract. It should be part of one's routine, especially in a land where tuberculosis of the lungs abounds, to use an individual atomizer as he uses an individual toothbrush. A simple alkaline nasal wash and throat spray will do much to prevent common colds and other infections through the nose and throat. All who can should make the cold morning shower and plunge bath a routine. Provided such a bath is followed at once by a good reaction no other tonic is so good for the respiratory system. But it should never be continued if chilling or other adverse reaction occurs. Sponge the chest often with cold water; and do not be afraid of plenty of cold fresh air in the sleeping room at night. Practice deep breathing at least twice a day, taking each time 15 or 20 full breaths so that ample fresh air may ventilate those upper corners of the lungs so frequently undistended and often the starting point of mischief. Avoid keeping the feet or bodily clothing wet for a long time. If exposure to the wet has occurred get a hot bath and dry clothing as soon as is possible. No part of one's physical being will be so sensitive to the change in China, or need such careful provision for its well being, as the nervous system.

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[1] NOTE BY COMMERCIAL ATTACHÉ ARNOLD.—This passage may convey to the reader in the United States, where many persons erroneously consider China as in the Tropics, the idea that China's climate is tropical or semitropical. The facts are these: More westerners live in Shanghai than in any other Chinese city, it is regarded as part of South rather than of North China, and it is in a latitude corresponding with that of Mobile, Ala.; but the temperature there during the winter has dropped as low as 2° F. and hardly a winter passes in which there is not some snow and ice. Households are obliged to keep fires throughout the winter months. The average annual mean temperature for Shanghai over a period of some years is given as 58° F., as compared with 76° for Hongkong. Peking, the capital city, has a very cold winter, the temperature generally dropping as low as 10°, and sometimes even to zero F. The statement in the text, therefore, may easily be misleading.

THE MENTAL ATTITUDE.

Lastly, and perhaps of greatest importance, is the mental attitude, for upon this largely depends your general health and possibility of success in this field. Business in China is not conducted on the same efficient lines as it is at home in western lands. If business were conducted in China on the same efficient and business-like lines as at home, there probably would be no cause for your coming to China. The man who succeeds in China as well as in any other outport business field is the man who approaches his new position with a spirit of cheerfulness and charitable attitude toward the people with whom he plans to live and associate. There will be many hindrances and delays and vexations which the wise man will seek to overcome, but which the unwise man will criticize and find fault with. The vast territory comprising China has a population of about four hundred million people who have been accustomed to doing things in pretty much the same way for some two or three thousand years. These methods can not and will not be changed just because the new arrival finds fault with them. Men who have succeeded in China are those who have worked with the current, while at the same time lending the full strength of their personalities and characters in helping to bring about better conditions.

LAND VALUES IN SHANGHAI.

By Commercial Attaché Julean Arnold.

Shanghai is a city of nearly a million inhabitants and is the most important commercial center in the Far East. It is the gateway to the great Yangtze Valley, which has a population of probably 150,000,000. It is situated on the Whangpoo River, 17 miles from its junction with the Yangtze. Ocean-going steamers generally anchor at Woosung, at the junction of the Whangpoo and Yangtze, but plans are being perfected for the docking of all ships at Shanghai. However, the stretch of land between Shanghai and Woosung is rapidly being built up, principally for shipping and industrial purposes, and it will not be many years before Shanghai City practically extends to Woosung.

Shanghai embraces the International Settlement, under the administration of an International Council, a French Concession, administrated by French and Chinese authorities; and a large Chinese section, including the Chinese Native City.

Land on the Bund (waterfront) in the International and French Concessions has risen in value during the past 10 years from 80,000 to 120,000 taels per mow (1/6 acre). The value of a Shanghai tael in gold dollars has risen from $0.65 to $1.20 during the past few years. Even at the figures above given it is very difficult—in fact, almost impossible—to purchase land on the Bund.

On Nanking Road, the principal thoroughfare of the International Settlement, land values have steadily increased. The best pieces of property on this business thoroughfare can not be purchased for less than 100,000 taels per mow and will yield over 8 per cent interest on the capital invested. Generally speaking, lands in Shanghai during the past 10 years have doubled and trebled in value.

On the Whangpoo Road in the International Settlement, land is in great demand for factory sites and dock and warehouse accommodations. This land is being bought up rapidly, and at a distance of 3 miles from the heart of the city it is to-day selling at 3,000 taels per mow. It is practically certain to double in value (at least) during the next decade.

On Soochow Creek, where flour, cotton, silk, and oil mills are springing up in large numbers, land values have doubled during the past five years, and it would be difficult to make any purchases at less than 3,000 taels per mow.

Between Shanghai and Woosung, along the river front, land can be purchased at 500 to 2,000 taels per mow, but these valuations are certain to increase, and probably very rapidly, since Shanghai is destined to become a city of several million people within another decade or two. The city occupies a very important strategical position commercially and is wonderfully well adapted for commercial and industrial purposes.

WORDS AND EXPRESSIONS IN COMMON USE IN FOREIGN COMMUNITIES IN CHINA.

By Commercial Attaché Julean Arnold.

Abacus.—This, called in Chinese "suan pan," is the Chinese adding machine, invented centuries before the Western devices. It consists of a wooden frame with a number of parallel wires or rods upon which are strung beads, arranged five to a section and two sections to a rod. The counting is on the decimal system. In adding, the columns or rods are divided into units, tens, hundreds, etc., and the beads are pushed toward the center piece dividing the rods, with five beads on each side. The five on the lower side count one unit each and those above five each. The Chinese become very expert with calculations on their "suan pan," even with calculations involving fractions, but they can not equal the speed or accuracy of a modern adding machine operated by one possessed of ordinary experience. The Chinese depend so fully upon their abacus for all arithmetical operations that they use it even for those of the simplest character, which they do not perform mentally.

Agar-agar.—A Malay term which in China means edible seaweeds generally.

Amah.—A female Chinese servant.

Awabi.—A kind of shellfish found in Japanese waters.

Bamboo oysters.—A small variety of very delicious oysters found in Foochow and grown on bamboo poles thrust into the mud in shallow water.

Bean cake.—The refuse after the oil has been expressed from the beans. It is pressed into huge cakes and used very extensively as a fertilizer.

Bargain money.—Money advanced to seal a transaction—a common practice in China.

Bats.—Emblematic in China of happiness and used extensively in decoration with this significance.

Bean curd.—A thick, white, cheesy substance made of beans, which may be called bean cheese. It is very nutritious and is eaten extensively throughout China.

Bèche de mer.—A large sea slug considered a great delicacy by the Chinese.

Birds' nests.—The inside lining of the nests of a species of swallow found in the Malay Archipelago. This gelatinous substance is predigested seaweed as prepared by these birds for their nests. It requires much labor to scrape the product in preparation for soup, but it is considered by the Chinese a great delicacy.

Bombay duck.—Certain varieties of small fish are salted and dried and then cut into pieces and toasted, after which they are served as a condiment for curry and rice and are known as bombay duck.

Boy.—A male servant. The female servant in China is called an amah.

Bund.—An artificial embankment.

Candareen.—One one-hundredth part of an ounce or tael of pure silver.

Capoor cutchery.—The root of a tuberous plant which grows in Fukien and Szechwan; used for medicinal purposes, for plasters, and for perfumes.

Cash.—One one-thousandth part of an ounce or tael of pure silver; a brass coin with a square hole.

Catty.—A unit of measurement equivalent to 1⅓ pounds avoirdupois.

Chair (sedan).—Used in the cities of South China and the rice-growing sections of China generally, where narrow streets abound, as a means of conveyance. The chair is carried by two, three, or four bearers.

Chang.—A Chinese measure equal to 10 Chinese feet or 141 inches.

Chin-chin.—A corruption of the Chinese salutation "Ch'ing-ch'ing," signifying to pay respects, farewell, etc.

China grass.—Ramie from which grass cloth is made.

Chit.—A letter, note, "i. o. u.", or any informal communication.

Chit book.—A book sent with a messenger so that the recipient of the message may acknowledge receipt thereof.

Chop.—A trade-mark, mark, or brand. To "chop" means to put one's seal stamp on the thing chopped.

Chop-chop.—A pidgin English expression for "make haste."

Chop-dollar.—A dollar stamped with a private mark as a guaranty of its genuineness, the person or shop chopping it assuming responsibility for it in case it is a counterfeit or under weight.

Chop-sticks.—Two sticks like elongated lead pencils used as tongs by the Chinese to raise the food to the mouth.

Chop-suey.—In Cantonese "Tsap-suey," literally miscellaneous pieces or odds and ends, corresponding somewhat to American hash. It is a dish confined to the Cantonese people and occupying a position relatively similar to that of hash in the American dietary.

Chow.—A word used throughout the English-speaking sections of China to mean food or a meal.

C. I. F.—Cost, insurance, and freight, used as a term in connection with a price quoted on a commodity offered for sale. For instance, "c. i. f. Shanghai" means price aboard ship at Shanghai, referring to an article of import.

Comprador.—The Chinese agent in a foreign firm, through whom the foreign firm transacts much of its business with Chinese and who often guarantees the credit of the firm's Chinese customers.

Comprador order.—A draft against the comprador to whom certain funds or accounts are intrusted and who meets these drafts from these accounts or funds—a great convenience to business in the treaty ports, as the comprador in this capacity serves as a bank in a limited sense for the firm to which he is attached.

Congee.—A thickened rice or millet soup or gruel.

Coolie.—The appellation for the unskilled laborer of China.

Coolie orange.—The inferior orange as contrasted with the superior or mandarin orange.

Court of consuls.—A tribunal composed of a certain designated number of foreign consuls chosen by their colleagues to adjudicate in suits against the municipal councils in international settlements in China.

Cumquat.—A small orange, edible when pickled or preserved.

Cumshaw.—A gratuity or tip.

Deer's horns.—These are divided into old and young and are valued for their medicinal properties as a stimulant in nervous ailments.

Dialects.—The Chinese spoken language has many dialects. It may be said, however, that about three-fifths of the people speak Mandarin or the official language. Although this may be considered as having several dialects, the distinctions between these are not very marked, whereas the distinctions between the dialects of the South are in some cases nearly as great as those between French and Italian, for instance.

Dragon dollar.—A silver dollar upon the face of which appeared a dragon. It was coined at the Tientsin mint and was later superseded by a dollar bearing President Yuan Shih Kai's head and thus called the Yuan Shih Kai dollar.

Dragon throne.—As the dragon was the emblem of imperial power, the throne of the Emperor was known as the Dragon Throne.

Extraterritoriality.—By treaties with China the nationals of foreign powers living in China are subject to the jurisdiction, not of Chinese law and Chinese courts, but the law and courts of their respective nationalities.

Feng-shui.—Literally, "wind and water"—the all-pervading Chinese geomantic system which takes cognizance of what is supposed to be the influence of the wind and water spirits for good or ill in the determination of the acts of human beings in almost everything that concerns them and the spirits of their ancestors. This has been a powerful influence against progress in varied ways.

Fu.—The word for "happiness," used freely by Chinese, the character being written in many fanciful ways and to adorn doorposts and everything capable of decoration.

Galangal.—A mild ginger, used in curries and medicines.

Ginseng.—Literally "man image," the root of a plant supposed to resemble the human body in shape and valued highly for its supposed tonic qualities. The nearer the root resembles the man image the more valuable it is supposed to be. The wild root is, however, always more highly prized than the cultivated plant.

Godown.—This word is always used in China in place of the word warehouse. It is a pidgin English word. In the earlier days of foreign trade in China, the foreign hong or trading establishment had its offices upstairs and its warehouse below, so the warehouse became known as the "godown."

Grass characters.—Chinese characters written in a hurried script-form, grassy in appearance.

Grass cloth.—Cloth made of ramie or China grass.

Green tea.—The distinction between green and black tea is in method of preparation only.

Griffin.—A newcomer to China, equivalent to a freshman at college.

Guilds.—Chinese guilds are unions of traders and merchants, but not in the sense of the trade union abroad. See page 245.

Haikwan.—The Maritime Customs of China; properly speaking, the Haikwan is a superintendent of the Maritime Customs.

Hong.—A mercantile house. A Chinese word used throughout the treaty ports as applicable to a merchandising establishment.

Jinrikisha.—More commonly called "ricksha"—a man-power or man-propelled two-wheeled vehicle. There are 20,000 in use on the streets of Peking and probably more on the streets of Shanghai.

Joss.—A Chinese idol; also used as synonymous with luck, as "good or bad joss."

Joss house.—A pidgin English expression for a Chinese temple.

Joss paper.—Pieces of paper, often in the shape of silver or gold shoes or bullion, burnt at funerals or other ceremonies for the dead.

Joss pidgin.—Pidgin English for any religious ceremony.

Joss stick.—Pidgin English for incense sticks used in great quantities throughout China for burning before the gods in the temples and in offerings to the spirits.

Junk.—A Chinese sailing vessel, particularly the sea and large river-going varieties.

Kang.—A Chinese word meaning a brick or clay bed with an opening beneath for a fire, used all over the north of China.

Kaoliang.—A species of sorghum or tall millet; one of the main crops of North China.

Kaolin.—The clay used for making chinaware.

Kin.—A catty, or 1⅓ pounds avoirdupois.

Kittysol.—The Chinese umbrella made of bamboo.

Kong or kang.—A large earthenware jar used for holding water, or Chinese pickles, etc.

K'ou-t'ou (also spelled "*Kow Tow*").—The ceremony of bowing or prostration in paying obeisance. It is also used in the expression of ceremonious thanks.

Lac, or lakh.—This means 100,000; it is generally used in connection with money.

Lekin, or likin.—A tax on trade collected throughout the interior on commodities in transit, with stations scattered throughout the country for collection purposes. It now amounts to exactions from 1 per cent up to whatever the traffic will bear.

Li.—A Chinese mile, equivalent to about 3/10 of an English mile but varying in different parts of the country.

Liang.—A Chinese ounce, known to foreigners as a tael, or 1⅓ ounces avoirdupois.

Lichee.—Pronounced "leechee;" a delicious fruit grown in South China and, when dried, called by Americans on the Pacific Coast "China nuts."

Likin.—See "Lekin."

Lo-ti-shui.—A destination tax imposed on foreign goods in the interior after they have left the treaty port limits and after they have passed into native hands; that is, after they have passed beyond the place in the interior to which they may have been protected by a transit pass which exempts them from the payment of any internal taxes during transit to the place designated in the pass.

Lungan, or lungngan.—A fruit found in South China somewhat resembling the lichee.

Mace.—Chinese "chien," a tenth part of a Chinese tael, liang, or ounce.

Mafoo.—A Chinese butler or groom.

Ma-loo.—A thoroughfare, or, literally, a horse-road.

Mandarin.—A Chinese official.

Mandarin dialect.—The official language of China, spoken by about three-fifths of the people of the country.

Mandarin orange.—A loose-skinned orange, supposedly superior to the tight-skinned or "coolie" orange.

Man-man.—Chinese for "go slowly."

Maskee.—Pidgin English for "never mind," "it makes no difference," etc.

Mexicans.—Refers to Mexican dollars current in China.

Mixed court.—In the international settlements in China there are mixed Chinese and foreign tribunals, presided over by a Chinese magistrate assisted by a foreign assessor or associate magistrate, to hear suits against Chinese that arise within the settlement limits.

Mow, mou, or mu.—A Chinese acre, equivalent to about one-sixth of an English acre, although differing in different parts of China.

Muck-and-truck.—The trade in commodities other than the staples of commerce.

Nankeen.—Cloth made from unbleached cotton.

Oolong.—Literally "black dragon;" a kind of tea that may be described as neither black nor green.

Orpiment or hartall.—A native sulphurate of arsenic, used as a pigment in paints.

Pekoe.—Literally "white hair;" the early leaves or buds of the tea, producing the most delicate of black teas.

Picul.—A measurement of weight in China, equivalent to 133⅓ pounds avoirdupois.

Pidgin.—The pidgin English word for business, presumed to be the Chinese imitation of the foreign word "business."

Pidgin English.—Spoken by many foreigners who do not speak Chinese and by many Chinese who do not speak proper English; employed in business relations principally, although also used extensively by foreigners, men and women, in South and Central China in their intercourse with their servants.

Pongee.—This originally meant "home-woven," but has been applied lately to silk cloth woven from silk spun by worms fed on oak leaves and produced principally in Shantung—hence also called "Shantung silk."

Punkah.—A large fan suspended from a frame and waved or pulled by a coolie or servant.

Ricksha.—See "Jinrikisha."

Runners.—The attendants at a Chinese court.

Samli, or samlee.—Literally, "season fish"; said by some to be the most delicious fish found in China waters; similar to shad.

Sampan.—Literally, "three boards"; a small flat-bottomed boat generally propelled by man power and used for passenger-carrying purposes.

Samshu.—Literally, "thrice fired"; a Chinese wine made of rice. The word is now interpreted as applicable to any Chinese wine or spirituous liquor.

Savvy.—Pidgin English for "to know," "to comprehend."

Sharks' fins.—White and black sharks' fins are cooked into soups and produce a delicacy of which all Chinese are very fond.

Shoes (*silver*).—The name given by foreigners to silver bullion or sycee, as the Chinese ingot takes the form of a small native shoe. Such shoes weigh from 1 to 50 taels or ounces but average about 5 ounces.

Shroff.—A silver expert whose business is to detect bad coins. The expression "shroff the dollars" means to examine them for bad ones. Every large mercantile establishment and every bank employs a shroff, who is responsible for the money taken in and paid out by the firm.

Soy.—Bean sauce.

Squeeze.—A commission on purchases or sales or other transactions, partaking of the character of what Americans call "graft."

Suan pan.—See "Abacus."

Sycee.—Literally, "fine silk." Chinese silver is called sycee, presumably because when the good silver is melted into ingots and poured into a mold, before it solidifies there appear on the top, if tapped, fine, silk-like lines.

Tael.—Or liang, a unit of exchange in China. Each trading center has its own tael, differing generally from that of every other port. The tael is not a piece of money but a weight of silver, as liang is a Chinese ounce, the Haikwan or Customs ounce being equivalent to 1⅓ ounces avoirdupois.

Tai-pan.—Literally "great manager"; the head or manager of a foreign mercantile establishment.

Tiffin.—A Persian word meaning midday meal or luncheon. Commonly used among foreigners in China.

T'ing-ch'ai.—An official messenger in a public office.

Touch.—A term used by assayers in referring to the purity of silver.

Transit passes.—Documents issued to cover foreign goods in transit into the interior of China to exempt them from taxation while in transit; for such a pass a fee is charged equal to 2½ per cent ad valorem or one-half the import duty if the goods are not on the free list.

Ya-men.—A Chinese residence or office, where the official seal is used.

NOTES ON CHINESE SOCIAL CUSTOMS AND ETIQUETTE.

By Commercial Attaché Julean Arnold.

SOCIAL CUSTOMS AND DRESS.

A few notes on Chinese customs and etiquette may not be out of place in a commercial handbook for the reason that trade must take cognizance of a people's customs and habits of life.

There is no caste in China. The people are very democratic. It can hardly be said that there is an aristocracy in China unless it be that of the educated men. In the social scale, the official and scholar stand first, followed by the farmer and the merchant. In modern China the merchant is forging to the front. The soldier, who once occupied a very low position in the Chinese social order, is now a factor of some consequence.

The greater part—probably at least 80 per cent—of China's population is agricultural. The rural population lives in villages, and, under the patriarchal system obtaining in China, all the members of a family, including several generations, live, figuratively speaking, under one roof; in reality, the Chinese household comprises a number of separate buildings, and the larger the number in the family, or the wealthier the family, the greater the number of buildings, though they are in connecting series and all surrounded by one common wall.

The villages and cities of China are, for the most part, walled, and the people live within walled compounds. There are no sidewalks along the streets of the Chinese village or city, and there are no suburban sections. In the south of China and in a large section of the great Yangtze Valley region, where rice is the main crop and where the country abounds in waterways, there are no roads as Americans understand the meaning of the word. There are paths only, and, with the exception of wheelbarrows, no wheeled vehicles are in use in these regions, except as railways are gradually making their appearance or as modern roads permit the use of motor cars (which, however, are found in very few instances).

The farmers, who might better be called gardeners (since the average farm scarcely exceeds an acre in area and cultivation is of the most intensive sort), go from the villages out to their fields, so there are few farmhouses in China. The fields are not divided by fences, but their bounds are marked with slightly elevated earth embankments or by cornerstones or sometimes bear no apparent boundary limitations. Cattle are not allowed to stray about in the country unattended, except on the grazing lands where human habitation is sparse.

Chinese all over China have great respect for the dead, and graves of the dead are sacred spots. In sections where there are hill lands the people generally bury their dead on the sides of the hills, but on the plains the dead are buried on the family estate—often in spots planted with clusters of trees. Ancestral tablets are kept in the households and ceremonies performed before them on days designated for the purpose. Ancestry worship is common throughout China.

It is not uncommon for a Chinese to be able to trace his ancestry back 1,000 years; some are able to trace theirs back, in direct line, even farther. The seventy-fifth lineal descendant of Confucius lives to-day in Shantung on the Confucian estate, where the great sage was buried 559 B. C. Practically every Chinese has an ancestral home. For this reason the remains of Chinese who have died abroad are generally sent back to China to the ancestral grave.

White is the color of mourning and red the color for the bride.

The bride in China is married at the home of the groom and enters the family of the groom, an important part of the marriage ceremony being the prostration of the bride and groom before the ancestral tablets of the groom. Marriages in China are arranged by the parents and go-betweens, the sons and daughters being in duty bound to accept the arrangements made for their marriage by their parents. Often bride and groom meet for the first time on the wedding day. In making wedding gifts, custom among the Chinese demands that they be in pairs. Those invited to the wedding feast are supposed to make an additional present in money, which goes toward the expenses of the feast.

There is great rejoicing in the Chinese family on the birth of a son, because in China the primary object of marriage is to have a son to carry on the continuity of the family and to worship at the graves and before the tablets of the ancestors. In reply to the query "How many children have you?" the Chinese father will usually mention the sons only, it being considered that the daughters, after marriage, enter another family. Few, indeed, are the bachelors and spinsters in Chinese society.

There is a very limited social mingling of the sexes in China. First and last, woman's place in China is considered to be the home. According to Chinese etiquette, the man's wife does not appear when he is entertaining his friends. Much of the entertaining, however, is done in restaurants and cafés, where men and women do not sit down together. In fact, respectable Chinese women do not frequent restaurants and cafés. When women go to the theatre, they are seated in a section set aside for them. Even in churches the missionaries are usually obliged to provide two sections, one for the men and the other for women. Beyond the primary schools, boys and girls are educated in separate schools. It is because of the great difference between the social customs of the Chinese people and those obtaining in the West that our photoplays are curious productions to the ordinary Chinese audience.

In Shanghai, the New York of China, many Chinese are adopting western social customs, and as Shanghai sets the standard for the rest of China, it may be expected that gradually the adoption of western ideas will spread over China generally. In Peking some of the Chinese women have taken up dancing and modern western social entertainments.

The Chinese are a theatre-loving people, and their famous actors command big pay. Contrary to the common impression among people in America, the usual Chinese play is not a two or three days' performance. Generally speaking, it is a short sketch, consuming on the average about half an hour's time. Numbers of short sketches follow one after another. There are some historical plays that are put on in serial form and are continued over several days, but these are very unusual. The popularity of a Chinese actor probably depends more on his voice than on his acting, so it is apparently not an easy task to popularize the motion-picture play in China. It may be possible, however, to do so by working up historical plays with elaborate settings depicting famous historical events.

In the south of China the Chinese men have discarded the use of the queue. In the central or Yangtze Valley region the queue is still to be seen, especially among the country people. In the north comparatively few Chinese have discarded the queue.

Most Chinese dress for the weather, so there is not a heavy demand for heating stoves. In the north, where the people are obliged, on account of the severe cold, to provide heat in addition to heavily padded clothing or furs, charcoal and briquette braziers and oven beds are used, but comparatively few heating stoves. Modern buildings and modern sanitary and heating appliances are, however, gaining favor among the wealthier Chinese, of whom there are many.

Among the men of China foreign shoes and hats are popular. The number of Chinese men adopting foreign dress is increasing very slowly. The Chinese gentleman still clings to his long gown, preferably of silk. The Chinese lady wears trousers, preferably of silk and, according to the 1918 fashions, short and tight-fitting. Some wear a sort of skirt over the trousers. They wear short stockings. Chinese women wear no millinery, but adorn themselves with jewels and hair ornaments. Foreign-style shoes are gaining in popularity with the Chinese women, who also wear the foreign style of men's garters. Footbinding among them is dying out gradually.

ETIQUETTE.

The Chinese are a very polite people, and the Chinese child is taught good manners from the beginning. A certain degree of culture has filtered down these many centuries through the masses, so that even the coolie is able in a graceful manner to render thanks for a gratuity or favor.

The Chinese reception room generally has a settee at the end farthest from the entrance, with chairs arranged along the sides leading up to the settee. Small tables are generally interspersed between the chairs, for the serving of tea and light refreshments. Even if the arrangement is not strictly in this order, more often than otherwise it will be based upon this plan. The seat of honor is that on the left of the settee, and the visitor or guest should not, until after he is pressed by his host and until he is satisfied that others present have not a greater right to this consideration than he, accept the invitation to occupy this seat. He should, when he goes into the room, act at least as though he is prepared to take the seat farthest removed from the seat of honor, which under this arrangement, is the one nearest the entrance. If awaiting the host, he should never occupy the seat of honor or any in immediate contact with it. When entering a room with a number of guests already assembled, one is expected to bow first to those on the right, then to those on the left—not individually, however—after which one may greet any particular friends or acquaintances individually. While the western salutation of a handshake is being received with increasing favor among the Chinese, yet one would do better, in calling upon Chinese, to let advances in this direction come from the Chinese themselves, as many are still unfamiliar with this form of greeting and the Chinese method of bowing and raising clasped hands to the chin several times is simple and cordial. It is expected, when in company with Chinese, that one will not remain sitting while an equal or a superior is standing, and, when there is no other criterion of rank, age should be taken into account. In conversation, it is not bad form—in fact, it is the usual thing—to inquire as to a man's age, his position, his plans for the future, the price paid by him for this or that, etc. One is always expected to inquire as to a man's sons and parents and their welfare.

Properly speaking, the place of honor in dining with Chinese is at the left of the host, although those Chinese who are familiar with western customs often respect the western ideas.

According to Chinese etiquette, gifts or other objects presented by one person to another are presented and received with both hands. When Chinese send a number of articles as a gift to a friend, the recipient is supposed to choose one or two and return the others.

The foreigner should bear in mind that Chinese are accustomed to taking time to come to decisions, that business in China is done over the teacup rather than over the telephone, and that friendship plays an important part. The people are kindly, polite, reasonable, and good-natured, and respond generously to friendly consideration from others.

Foreigners should be careful in speaking of the Chinese to use the appellation "Chinese" and not "Chinamen," "John Chinamen," or "Chinks," all of which are objectionable to the better class of Chinese people. Thus one should speak of a "Chinese" and not a "Chinaman." Similarly, Chinese object very strongly to the use of the appellation "heathen." To make a distinction of this nature, the appellation "non-Christian" is not objectionable. Americans generally who are desirous of improving the relations between the United States and China should bear in mind the sensibilities of the Chinese people and respect their wishes in regard to the designations to be used in addressing or speaking of the people.

Americans intending to conduct business or maintain social intercourse with Chinese should provide themselves with calling cards bearing on one side their names and occupations in English and on the other in Chinese. It is customary to have a three-character name, and foreigners usually aim to get Chinese characters that resemble in sound the foreign name. For instance, the name "Wilson" may be rendered in Chinese by the three characters "Way-Lee-Son." It must be borne in mind that Chinese custom places the family name first; thus "George Wilson" in Chinese would appear "Wilson George." Mr. Wu Ting Fang is Mr. Wu and not Mr. Fang. Americans should be careful, in choosing Chinese names, to consult several Chinese, including a Chinese scholar, so as to secure names that will not, in their meaning, tend to subject them to ridicule among Chinese of learning. It is preferable to have a name that bears a good meaning from a Chinese viewpoint rather than one that compares to the English sound but conveys a ridiculous meaning. Similarly, American business men, in choosing Chinese firm names, should do so with the utmost care and only after consulting those who are able to give good counsel.

IMPORTANT DAYS IN THE CHINESE CALENDAR.

The following table shows important days in the Chinese calendar:

Foreign calendar, 1920.	Chinese calendar.	Characteristics of days.
	Seventh year of the Republic.	
Feb. 9	12th moon, 20th day	Festival of Lu Pan, patron saint of the carpenters and masons, who observe the day as a holiday.
13	12th moon, 24th day	God of the hearth departs for Heaven. Beginning of the new year's business settlement, which ends on the 30th day of the month.
	Eighth year of the Republic.	
20	New Year's Day	General holiday throughout China. Shops and business houses close for five days.
24	1st moon, 5th day	Festival of the God of Fortune. Beginning of spring. Annual financial reports of business houses completed. Employees discharged and engaged.
Mar. 2	1st moon, 12th day	Eighth anniversary of the Manchu abdication.
5	1st moon, 15th day	Feast of the lanterns.
21	2d moon, 2d day	Vernal equinox. Birthday of Lao Tsz, the founder of Taoism, born 604 B. C.
Apr. 24	3d moon, 6th day	Ching Ming or grave festival. Worship of the spirits of the ancestors. Now also observed as Arbor Day.
May 24	4th moon, 7th day	Beginning of summer.
25	4th moon, 8th day	Festival of Buddha.
28	4th moon, 11th day	Anniversary of the death of Confucius.
31	4th moon, 14th day	Festival of Sian Yang, Taoist patriarch and the patron saint of the barbers, who observe this as a holiday.
June 20	5th moon, 5th day	Dragon boat festival. Business settlement day and a general holiday.
21	5th moon, 6th day	Summer solstice.
28	5th moon, 13th day	Festival of Kwan Ti, the God of War, reputed a good business man and for this reason the patron saint of business men.
Aug. 26	7th moon, 13th day	Beginning of autumn.
27	7th moon, 14th day	Festival of the dead.
Sept. 22	8th moon, 11th day	Autumnal equinox.
26	8th moon, 15th day	Full moon festival. Mid-autumn festival corresponding to the American Thanksgiving Day.
Oct. 27	9th moon, 16th day	Anniversary of the outbreak of revolution leading to the founding of the Chinese Republic; a national holiday.
Nov. 26	10th moon, 16th day	Beginning of winter.
Dec. 21	11th moon, 12th day	Winter solstice.

NOTE.—Generally the Chinese do not observe Sunday as a holiday. In fact, in the interior of the country, away from contact with foreigners, the days of the week are unknown, the inhabitants using the days of the month only; so no cognizance is taken of Sunday, except as foreign missionaries influence their converts to respect it. In Government offices and in public schools in the provincial capitals and in treaty ports Sunday is observed to a considerable extent. Even in Shanghai, however, very few Chinese shops close on Sunday. There will undoubtedly develop in China a general recognition of Sunday as a day of rest.

CHINESE WEIGHTS AND MEASURES.

MEASURES OF LENGTH.

The Chinese "chang" is equal to 141 English inches or 3.58133 meters. The chang is divided as follows:

1 fen=0.141 English inch=0.00358 meter.
10 fen=1 ts'un=1.41 inches=0.03581 meter.
10 ts'un=1 ch'ih=14.1 inches=0.35813 meter.
10 ch'ih=1 chang=141 inches=3.58133 meters.
180 chang=1 li=2,115 feet=619.25 meters.

The Chinese "ch'ih," or foot, is of varying lengths, not only within the different Provinces, but also among the different guilds, branches of commerce, and professions. A carpenter uses a ch'ih different from that of a blacksmith, and large shops have generally two ch'ih in use, one for large transactions and another for small sales. At the time when the tariff was established the Canton ch'ih was the best known, and therefore it was chosen by the British as the treaty ch'ih.

MEASURES OF AREA.

A Chinese square foot is equal to 198.81 English square inches or 1.380625 English square feet. The common measure for the sale of land is the local "mow," which differs very much all over China. Six mow are generally reckoned as equal to 1 English acre or 4,840 square yards; or 1 mow is equal to 675 square meters.

25 square ch'ih=1 square pu (or kung).
240 square pu=1 mow.
100 mow=1 ch'ing.

CUBIC MEASURES AND MEASURES OF CAPACITY (LIQUID).

A Chinese cubic foot is equal to 2.803.221 English cubic inches or 1.62234 English cubic feet. The most common measures are the "tou," the "sheng," and the "ko." These measures differ very much all over China. The tou of the imperial granaries contains about 5.1341 liters, and the common market tou about 7.4059 liters.

Fluids, such as oil, vinegar, samshu, etc., are often weighed like any other merchandise. But there are jars, bottles, and earthen vessels in use that contain a fixed quantity of the fluids, as 15, 30, or 60 catties. The American gallon has become a measure of great importance in China since the introduction of petroleum. The American gallon contains 231 cubic inches. The imperial gallon contains 277.462879 cubic inches. An American weight gallon weighs 6.5 pounds. A unit equals 10 gallons and weighs 65 pounds.

WEIGHTS.

The standard weight in China is the picul, which contains 100 catties. A catty equals 1⅓ English pounds, and a picul is reckoned at 133⅓ pounds. The ton used and known by the Chinese for the export trade is the English long ton of 2,240 pounds; its equivalent in Chinese weight would be 16 piculs and 80 catties. Fifteen piculs equal 1 short ton.

10 lee=1 fen.
10 fen (candareens)=1 ch'ien.
10 ch'ien (mace)=1 liang.
16 liang (taels)=1 chin.
100 chin (catties)=1 tan (picul).

COINAGE.

For information concerning Chinese money, the reader is referred to the chapter on “Currency, Exchange and Banking,” beginning on page 158.

CONVENIENT EQUIVALENTS FOR READY CONVERSION.

Following are a number of the equivalents most commonly used in conversions from English to Chinese units and vice versa:

WEIGHTS.

1 short ton=15 piculs.
1 long ton=16 piculs 80 catties.
1 hundredweight=84 catties.
1 pound avoirdupois=¾ catty or 12 taels.
4 ounces=3 taels.
1 picul=1.19047 hundredweight.
1 tael=1.333 ounces=37.783 grams.
1 catty=1.333 pounds=604.53 grams.

MEASURES OF DISTANCE AND AREA.

5 fen=0.486 inch.
1 pu=5.5 feet.
1 li or 360 pu=486.176 yards.
10 li=3 miles.
250 li=69 miles.
1 mow=7,260 square feet or 797.89 square yards.
100 mow=79,789.06 square yards.

LISTS OF OFFICIALS, ORGANIZATIONS, AND INSTITUTIONS.

There will be given in this chapter a series of lists of American Government representatives in China; American clubs, associations, etc.; schools, bureaus, and conservancy works.

UNITED STATES GOVERNMENT REPRESENTATIVES IN CHINA.

Minister, Peking.
C. S. Lobingier, judge United States Court for China, Shanghai.
Julean Arnold, commercial attaché, Peking.
Leo A. Bergholz, consul general, Canton.
E. S. Cunningham, consul general, Shanghai.
George E. Anderson, consul general, Hongkong.
Albert W. Pontius, consul general, Mukden.
P. Stewart Heintzleman, consul general, Hankow.
Stuart J. Fuller, consul general, Tientsin.
A. E. Carleton, consul, Amoy.
George F. Bickford, consul, Antung.
M. F. Perkins, consul, Changsha.
Stuart K. Lupton, consul, Chefoo.
P. R. Josselyn, consul, Chungking.
Max D. Kirjassoff, consul, Dairen.
George C. Hanson, consul, Foochow.
Douglas Jenkins, consul, Harbin.
John K. Davis, consul, Nanking.
Myrl S. Myers, consul, Swatow.
Clarence E. Gauss, consul, Tsinanfu (Tsinan).
Willys R. Peck, consul, Tsingtau.
Raymond P. Tenney, American Mixed Court assessor and consul, Shanghai.
Edward E. Everett, United States postmaster, Shanghai.
Commissioner, United States Treasury Department, Shanghai.

NOTE.—In addressing American diplomatic and consular officers on official business, address the office and not the incumbent. For instance, The American Minister, Peking; The American Consul, Changsha; The American Postmaster, Shanghai. In all cases, except for Shanghai, use international postal rates. For Shanghai, domestic postal rates obtain.

AMERICAN CLUBS, ASSOCIATIONS, ETC., IN CHINA.[1]

COMMERCIAL.

American Chamber of Commerce of China, Shanghai; J. B. Powell, secretary (the Chamber publishes a bulletin for circulation among members).
American Chamber of Commerce of Tientsin, Tientsin; address the secretary.
American Association of China, Shanghai; address the secretary.
American Association of North China, Tientsin; address the secretary (publishes a monthly bulletin).
American Association of North China, Peking Branch; address the secretary.
American Merchants Association of Harbin; address care American consulate.
American Association, Hankow.

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[1] For a directory of American missionary institutions in China, consult the Mission Year Book.

JOINT CHINESE-AMERICAN ASSOCIATIONS.

Chinese-American Association, Nanking; address care American consulate.
Chinese-American Association, Canton; address care American consulate general.
American Association of Chengtu: address R. R. Service, Chengtu, Szechwan.
American University Club of China, Shanghai; address J. B. Powell, secretary (publishes a monthly bulletin).
American University Club of Hankow; address care American consulate general.
American College Club of North China: address Samuel S. Young, secretary, Peking.
American College Club (Women), Shanghai; address the secretary, care Y. W. C. A., Shanghai.
Advertising Club of China; address the secretary, care Y. M. C. A., Shanghai.

HUMANITARIAN.

American Red Cross (in China) (organized for war relief work):
  Central Committee for the whole of China, Shanghai (cable address, Amcross): W. A. B. Nichols, 18b Kiangse Road, secretary.
  Chapters—(address in each case the secretary of the chapter)—
    Amoy.
    Canton.
    Changsha.
    Foochow.
    Hankow.
    Harbin.
    Hongkong.
    Mukden.
    Nanking.
    Peking.
    Shanghai.
    Swatow.
    Szechwan, including Chungking and Chengtu.
    Tientsin.
  Branches, under the above chapters, located at Hangchow, Wuhu, Chinkiang, Ningpo, Tsinanfu, and Antung.

SOCIAL AND RECREATION CLUBS.

American Club, Shanghai; address the secretary.
Columbia Country Club, Shanghai; address the secretary.
American Athletic and Baseball Club, Shanghai; address the secretary, care the American Club.

MISCELLANEOUS.

American Bar Association of the Far East, Shanghai; address the secretary, care of the United States Court for China.
American Woman's Club, Shanghai; address the secretary.
American School, Shanghai; address the principal.
American School, Peking; address the principal.
Anglo-American Club, Peking.
Union Club (American, British, Chinese), Shanghai.

NOTE.—The following clubs in the United States are in close relationship with the China organizations:

  American Asiatic Association, New York; John Foord, secretary.
  China Commerce Club of California, San Francisco; Dr. Frank E. Hinckley, secretary.
  China Club of Seattle; E. M. Lewis, secretary.
  China Society, New York.
  East Asiatic Society, Boston.

SCHOOLS AND HOSPITALS.

The reader will find on p. 418 of this book a list of 80 of the principal educational institutions in China.

A list of hospitals and medical schools in China may be obtained from the Bureau of Foreign and Domestic Commerce or any of its district or cooperative offices by mentioning list No. FE 13001.

IMPORTANT DEPARTMENTS, BUREAUS, AND OFFICES.

Bureau of Education, Mukden.
Bureau of Education, Tientsin.
Bureau of Public Works, Hongkong.
Bureau of Saltpetre, Newchwang.
Central Laboratory (of South Manchuria Railway), Fushimidai, Dairen.
Electric Power House, Tientsin.
Government Lnd Resurveying Office, Mukden.
Meteorological Station, Tsingtau.
Mining Bureau (there is a mining bureau in every Province, located in its capital), Wuchang.
Mining Departmen of the Shantung Railway, Tsingtau.
Office of Government Analyst, Hongkong.
Public Works Department, Municipal Council, International Settlement. Shanghai.
South Manchuria Sugar Refinery, Mukden.
Service des Travails et du Controle, Conseil d'Administration Municipale de la Concession Française, Rue du Consulat, Shanghai.
Slaughter House, Tsingtau.
Waterworks Department, Tsingtau.
Weather Bureau, Ihiko, Dairen.
Wharf Office, Jihiko, Dairen.

CONSERVANCY AND HARBOR WORKS.

Chefoo Harbor Improvements, Chefoo.
Chihli Conservancy Board, Tientsin.
Conservancy Department, Governmen Teacher's College, Nanking.
Haiho Conservancy Commission, Tientsin.
Kwangtung Conservancy Board, Canton.
Liao River Conservancy Board, Newchwang.
National Conservancy Commission, Peking.
Netherlands Harbor Works, Chefoo.
Plant, Capt. S. C., care of Chinese Maritime Customs (which in all probability would be in charge of any conservancy work), Chungking.
Whangpoo Conservancy Board, 6 Kiukiang Road, Shanghai.
Wharf Office (charged with conservancy work), Dairen, Manchuria.

TRADE LISTS.

The Far Eastern division of the Bureau of Foreign and Domestic Commerce is engaged in re-editing all Bureau trade lists on the Far East. Included among these lists are names of American firms in China and also numerous lists of other firms grouped by the commodities they handle. These lists may be obtained by writing to the division, indicating as far as possible the use to which the lists are to be put, with a statement concerning the commodities to be covered.

USEFUL LITERATURE ON CHINA.

By Commercial Attaché Julean Arnold.

The business man ordinarily has neither the time nor the inclination to wade through the great mass of literature on China in efforts to find something of value to him in furthering his trade relations with that country. With the object in view of indicating to him such material as may be particularly helpful to a better knowledge of the commercial, industrial, and economic needs of China, and of affording him an opportunity to know something of the culture, customs, and history of the people, the following brief descriptive lists are prepared. These lists do not pretend to embrace all the published literature on China that is worth reading. For those who wish to carry their investigations further, bibliographies on China will be found in a number of the publications herein listed.

PUBLICATIONS OF BUREAU OF FOREIGN AND DOMESTIC COMMERCE.

Of special interest to the American exporter, importer, and manufacturer are the publications of the Bureau of Foreign and Domestic Commerce. These may be secured directly from the district and cooperative offices of the Bureau, at nominal prices, and may also be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. These publications include:

1. COMMERCE REPORTS: A daily journal containing articles submitted by consular officers, commercial attachés, and trade commissioners of the Department of Commerce, as well as trade information from other sources. The subscription price is $2.50 per annum. The annual reports of consular officers are issued as supplements to COMMERCE REPORTS and are sent free to all subscribers. They contain general information on commercial, industrial, and financial conditions.

2. Bulletins on special subjects: These comprise the Special Agents Series, Special Consular Reports, Tariff Series, and Miscellaneous Series. These monographs appear at irregular intervals and are sold at nominal prices. Announcement of their publication appears in COMMERCE REPORTS. A catalogue containing a brief description of each bulletin may be obtained from the Bureau or its district and cooperative offices.

The monographs containing material relating to China include:

Special Agents Series:
- No. 86. Cotton Goods in Japan and their Competition on the Manchurian Market (1914, 30 cents).
- No. 92. Canned Goods in the Far East (1915, 10 cents).
- No. 99. Cottonseed Industry in Foreign Countries (1915, 10 cents).
- No. 104. China and Indo-China Markets for American Lumber (1915, 5 cents).
- No. 107. Cotton Goods in China (1916, 25 cents).
- No. 170. Motor Vehicles in Japan, China, and Hawaii (1918, 15 cents).
- No. 172. Electrical Goods in China, Japan, and Vladivostok (1918, 30 cents).
- No. 173. Shoe and Leather Trade of China and Japan (1918, 5 cents).

Special Agents Series—Continued.
- No. 180. Far Eastern Markets for Railway Materials, Equipment, and Supplies (1919, 35 cents).
- No. 186. Chinese Currency and Finance (1919, 10 cents).

Special Consular Series:
- No. 45. Cordage and Twine in Foreign Countries (1911, 5 cents).
- No. 46. Optical Goods Trade in Foreign Countries (1911, 10 cents).
- No. 48. Railway Situation in China (1911, 5 cents).
- No. 51. Foreign Trade in Denatured Alcohol (1912, 5 cents).
- No. 52. Foreign Salt Market and Industry (1912, 10 cents).
- No. 53. Foreign Markets for Motor Vehicles (1912, 10 cents).
- No. 54. Foreign Trade in Canned Goods (1912, 15 cents).
- No. 55. Foreign Trade in Musical Instruments (1912, 10 cents).
- No. 56. Foreign Trade in Paints and Varnishes (1912, 10 cents).
- No. 59. Development of the Motor Vehicle Trade Abroad (1913, 5 cents).
- No. 60. Foreign Markets for Railway Supplies and Equipment (1913, 25 cents).
- No. 62. Markets for American Fruits (1914, 10 cents).
- No. 63. Cooking and Heating Stoves in Foreign Countries (1914, 10 cents).
- No. 73. Paper and Stationery Trade of the World (1915, 50 cents).
- No. 74. Japanese Cotton Goods Industry and Trade (1915, 5 cents).
- No. 75. Foreign Trade in Buttons (1916, 20 cents).

Tariff Series:
- No. 29. Foreign Import Duties on Office Appliances (1914, 5 cents).
- No. 30. Foreign Import Duties on Motor Vehicles and Accessories (1914, with supplement 1917; original work, 10 cents; supplement, 5 cents).

Miscellaneous Series:[1]
- No. 10. Foreign Publications for Advertising American Goods (1913, 25 cents).
- No. 44. Trans-Pacific Shipping (1916, 5 cents).
- No. 50. Far Eastern Markets for American Hardware (1917, 25 cents).
- No. 70. The Conduct of Business with China (1919, 10 cents).

3. Statistical publications. These include: Monthly Summary of Foreign Commerce of the United States; Imports Entered for Consumption (quarterly); Commerce and Navigation (annual); Trade of the United States with the World (annual); Statistical Abstract (annual).

PUBLICATIONS OF THE CHINESE GOVERNMENT.

The only publications of the Chinese Government containing much trade information are those issued by the Maritime Customs. The others appearing regularly in English are the annual reports of the Post Office, the Bank of China, and the Government railroads. There is a report of a census of agriculture and industries published in Chinese, of which the Bureau of Foreign and Domestic Commerce has a partial translation in manuscript. The publications of the Chinese Maritime Customs are sold in the United States through G. E. Stechert & Co., 151 West Twenty-fifth Street, New York City. They include:

(1) Daily returns of the trade of Shanghai, Hankow, Canton, Tientsin.

(2) Annual Reports and Returns of the Trade of China.

(3) Index to Annual Reports and Returns of the Trade of China, published every five years (last in 1918).

(4) Decennial review of the trade of China (last issue dated 1911).

(5) Editions of the tariff, showing duties on goods the valuations of which have been fixed. There are two of these, one covering the import and the other the export tariff.

(6) Special series, including special reports on Chinese raw materials.

(7) Miscellaneous series (chiefly relating to aids to navigation).

Students of Chinese trade will be interested chiefly in the Annual Reports and Returns of the Trade of China, the editions of the

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[1] Volume 1 of the Commercial Handbook of China bears the same number as the present book—Miscellaneous Series No. 84. Its price is 60 cents.

Tariff, and a few of the special and miscellaneous series. The last named include:

Special series:
  No. 16. Chinese Jute.
  No. 27. An Inquiry into the Commercial Liabilities and Assets of China in International Trade.
  No. 30. Memorandum on Wild Silkworm Culture in Southeastern Manchuria.
  No. 31. The Soya Bean of Manchuria.
Miscellaneous series:
  No. 17. List of Chinese Medicines.

The annual reports and returns of trade are published in eight parts at irregular intervals from about May to October of every year, as follows:

Part I. Report on the Foreign Trade of China and Abstract of Statistics.

Part II. Trade by ports: Vol. I, Northern Ports; Vol. II, Central Ports; Vol. III, Yangtze Ports; Vol. IV, Southern Coast Ports; Vol. V, Frontier Ports.

Part III. Vol. I, Analysis of the Import Trade; Vol. II, Analysis of the Export Trade.

Part III consists wholly of statistics, but in the other volumes there are concise and authoritative narrative reports containing much valuable material—in Part I for China as a whole and in Part II for each of the 48 treaty ports.

These publications are valuable, but voluminous and fairly expensive.

The Chinese Post Office Department has published an excellent atlas, showing locations of all post offices and postal routes in all Provinces of China, and indicating the distances between the various post offices and the frequency of mail deliveries. While this volume was issued primarily for the use of the postal service, a limited number of copies are on sale at the main Chinese post office in Peking Road, Shanghai. The price is $12 per copy.

PERIODICAL PUBLICATIONS ON CHINESE TRADE AND INDUSTRY.

In the absence of comprehensive official publications the current developments in Chinese trade and industry must be followed largely through periodicals. These have to be used with discretion, as much of the material needs verification; but if they are followed systematically the majority of the errors will be found to correct themselves, and the net information gained is indispensable for an up-to-date knowledge of the situation.

Very few periodicals in China can be described as trade journals, and these cover a limited field. The principal daily newspapers published in English have weekly editions, in which all items of importance are reprinted. There is usually a special commercial section.

The following list includes all of the periodicals that would interest an American business house. The Bureau of Foreign and Domestic Commerce maintains files of these, and articles on important subjects appearing since the beginning of 1917 have been indexed. The most important periodicals are to be found in many large public libraries and in the offices of trade organizations and commercial-service agencies that handle Far Eastern work.

Weekly editions of daily newspapers:
- North China Herald; Shanghai. British; the best of this class for central and northern China.
- Hongkong Weekly Press and Overland Trade Report; Hongkong. British; probably the best of the class for southern China.

General periodicals published in China:
- Far Eastern Review; Shanghai. A monthly, specializing in commerce, industry, and finance.
- Millard's Review of the Far East; Shanghai. An American weekly periodical which gives a comprehensive résumé of political conditions and carries a good deal of reliable trade information.
- British Chamber of Commerce Journal; Shanghai. A monthly, abounding in good trade information.
- Weekly China Advertiser; Tientsin. Owned by Japanese and published in their interests; contains valuable information on the resources and raw materials of northern China and Manchuria not accessible elsewhere.

Price and market reports:
- Fortnightly Price Current and Market Report. Published by the Hongkong General Chamber of Commerce; contains market quotations, trade statistics, export freight rates, and a periodical report on the Canton silk market.
- Weekly Circular of the British Chamber of Commerce of Hankow. Especially for export price quotations.
- Weekly Cotton Piece Goods Report; Shanghai. Published by Noel, Murray & Co.
- Weekly Cotton Market Report; Shanghai. Published by Rosenfeld & Co.
- Fortnightly Freight and Coal Market Report; Shanghai. Published by Wheelock & Co.

Miscellaneous periodicals relating to the Orient:
- Asia; New York. Monthly, published by the American Asiatic Association, largely popular and pictorial, but valuable for descriptive material and discussion of general developments.
- Trans-Pacific Magazine; Tokyo. Monthly, with articles and trade notes on China and the Far East generally.
- London and China Express; London. Weekly.
- London and China Telegraph; London. Weekly; this and the preceding contain miscellaneous reprinted and abstracted material: not highly authoritative, but in a convenient form.
- Eastern Engineering; London. Monthly technical supplement of the London and China Express.

The last three periodicals are published at 79 Gracechurch Street, London, E. C.

BOOKS OF REFERENCE AND GENERAL INFORMATION.

Books relating to China are numerous, but the proportion containing authoritative material on trade and economic conditions is small, and most of the information out of date. As regards most of the many books of travel and general description, there is really little choice. A large proportion of the books published in recent years has been devoted mainly to political and controversial topics. The books below noted are worth examination by anyone desiring a broad knowledge of the subject from a business point of view. Comparatively few of them are kept by the ordinary bookstores in this country, and inquiries should be directed to establishments that specialize in foreign books. In many cases they will have to be ordered from China.

Among the annual publications may be mentioned:

Rosenstock's Directory of China. The only classified business directory covering the whole country; it may be purchased separately, or in one volume with a directory of Manila. Published at 4 Canton Road, Shanghai.

Directory and Chronicle of China, Japan, etc. Not classified but contains fuller information on some details than Rosenstock's Directory. Published by the Hongkong Daily Press, 10a Des Voeux Road Central, Hongkong.

China Yearbook. The most comprehensive current reference book on China. Published by E. P. Dutton & Co., New York.

China Stock and Share Handbook. Contains approximately complete data relating to companies whose shares are quoted on the Shanghai and Hongkong stock exchanges, together with miscellaneous information on financial conditions and foreign exchange. Published by North China Daily News, Shanghai.

China Mission Year Book. Of more interest to business men than the title implies; contains full reviews of commercial, industrial, and political development by competent authorities. Published by Mission Book Co., Shanghai.

Among miscellaneous books wholly or partly devoted to trade, industry, and finance, the following will be of interest and value:

Comprehensive Geography of China, by L. Richard, translated and revised by M. Kennelly. A very informative book comprising a physical and political description of China and its dependencies. Each chapter is followed by a full bibliography on the subject under review. Published by the T'usewei Press, Shanghai. Price, $5.50 Mex.

Things Chinese, by J. Dyer Ball. A handy reference book of 800 pages—a sort of condensed encyclopedia of things Chinese. Published and sold by Kelly & Walsh, Shanghai and Hongkong. Price, $7.50 Mex.

Official Guide to Eastern Asia: Vol I, Manchuria and Korea; Vol. IV, China proper. Published in Japanese interests by the Imperial Japanese Government Railways, 1913–1915. These well-illustrated little volumes of 350 and 414 pages, respectively, constitute the best "Baedeker" of China yet published; they contain valuable data not accessible elsewhere, especially an excellent series of maps.

Handbook of Business Training, by S. S. Chow. Contains, along with some elementary matter, detailed data on the procedure of the Chinese Customs (with specimens of all documents in English and Chinese) and on local exporting and importing practices, brokerage, banking, insurance, etc. Published by Commercial Press, Shanghai, 2d ed., revised, 1916.

Handbook for China, by C. Crow. Primarily a guidebook, the commercial information being brief and incidental, but useful as an introduction. Published by San Francisco News Co., San Francisco, 2d ed., revised, no date.

The International Relations of the Chinese Empire, by Hosea Ballou Morse. In three volumes: Vol. I, The Period of Conflict, 1834–1860; Vol. II, The Period of Submission, 1861–1893; Vol. III, The Period of Subjection, 1894–1911. It is hoped that these may be followed by a fourth volume dealing with the period of reconstruction. This is an authoritative work and abounds in information most useful to the business man who would obtain a picture of China's relations with the outside world. Published by Longmans, Green & Co., New York. 1910–1918.

China and the World War, by W. Reginald Wheeler. This little volume, easily readable, contains a wealth of information which should be familiar to all persons having an interest in China. The appendix contains an excellent bibliography on China. Published by the Macmillan Co., New York, 1919.

The Middle Kingdom, by S. Wells Williams. Two volumes. For solid, authoritative information regarding China, the Chinese people, and their institutions, this book—written more than 35 years ago and revised several times—still occupies a premier position. Published by Charles Scribner's Sons, New York, 1882; revised edition, 1907. Price, $12 United States currency for the two volumes.

The Trade and Administration of China, by H. B. Morse. This book is particularly good on the subjects of finance and currency, extraterritoriality, treaty ports, and the history of the development of foreign trade. Published by Longmans, Green & Co., London, 1909; revised edition, 1913, Kelly & Walsh, Shanghai.

Treaties, Conventions, and Agreements between China and Other Countries, by J. V. A. MacMurray, counsellor to the American Legation, Peking. The most up-to-date, comprehensive, and authoritative publication on this subject. Published by the Carnegie Foundation, 1919.

Eastern Exchange, Currency, and Finance, by William F. Spalding. The best and most authoritative publication on this very interesting and perplexing question, which concerns every foreigner having any relations with China and the other countries of the Far East. Published by Isaac Pitman's Sons, London. 1917. Price, 10s. 6d. ($2.55). (An exchange primer by the same author has recently been published.)

An Outline History of China, by Herbert H. Gowen. To understand a people one should have a fair idea of their history. Dr. Gowen's 400-page outline should be welcome to the business man ambitious to know something of the more interesting phases of China's marvelous historical background. Published by Sherman, French & Co., Boston, 1917.

Railway Problems in China, by Mongton Chih Hsu. A monograph of interest on one of China's most important problems—transportation. Columbia University Studies in History, Economics, and Public Law, 1915.

Contemporary Politics in the Far East, by Stanley K. Hornbeck. Reputed to be the clearest and fairest statement of China's present political situation. Published by D. Appleton & Co., New York, 1916.

Our Eastern Question, by Thomas Millard. A description of the present and probable future relations of China, Japan, and the United States. Published by the Century Co., New York, 1916.

Farmers of Forty Centuries, by Prof. F. H. King. Second edition. Probably 85 per cent of China's population is rural, and this book, like the one next mentioned, gives a good picture of rural China. Published by Macmillan & Co., New York.

Village Life in China, by Arthur H. Smith. Published by Fleming H. Revell Co., New York.

The Changing Chinese, by E. A. Ross. An interesting sociological study of the China of to-day by an acute observer who obtained his information at first hand, traveling in China, meeting and discussing conditions with many well-informed persons. Published by the Century Co., New York, 1912. Price, $2.50.

The Fight for the Republic in China, by B. L. Putnam Weale. China's internal political situation, with sidelights on its relations with foreign powers, is set forth here in a very able manner by one well qualified to write on the subject. Published by Dodd, Mead & Co., New York, 1917.

China and the Far East; Clark University Lectures. Even though published nine years ago, this is an exceedingly interesting set of papers on China's relations with the United States and other western powers, as well as China's foreign trade. Published by Thomas Y. Crowell & Co., New York, 1910.

Treaty Relations Between China and Other States, by M. T. Z. Tyau. Valuable for those persons desirous of understanding the complications arising out of the extraterritorial and treaty relations between China and other powers. Commercial Press, Shanghai, and G. E. Stechert & Co., New York, 1917.

Chinese Art, by Stephen W. Bushnell. This is a standard work; it furnishes a very useful study of Chinese life and thought, with far more information than might be imagined. Published by the Victoria and Albert Museum, London, 1904; second edition, 1914. Price, $3 Mex. (out of stock).

The Three Religions of China, by W. E. Soothill. This is said to be the best "popular" presentation of Buddhism, Taoism, and Confucianism, of which the West hears much but knows little. Published by Hodder & Stoughton, London, 1913. Price, $4.50 Mex.

Researches into Chinese Superstitions, by Henry Dore; translated by M. Kennelly. Beautifully illustrated, and a most useful and interesting description of Chinese customs and superstitions. Valuable to the merchant introducing his goods into China and wishing to advertise effectively. Published by the T'usewei Press, Shanghai; four volumes published, eight more to be published. Price, $5 per volume.

A Naturalist in West China, by Ernest H. Wilson. Two volumes. This book contains a wealth of reliable information on Chinese products and industry. It is also of special interest to persons contemplating tours into the interior of China. Published by Methuen & Co., London, 1913.

On the Trail of the Opium Poppy, by Sir Alexander Hosie. May be recommended in the same terms as the preceding book. George Philip & Son, London, 1914.

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Mineral Enterprise in China, by W. F. Collins. Contents: Chinese mineral enterprise before modern times; "fengshui"; British, French, and American policy in China; British and French mineral enterprise in Central and South China; Hanyang iron and steel enterprise; Government mining enterprise: Hunan antimony and zinc-lead industries; mining rights in Shantung; mining enterprise in North China; mining in Korea; general conditions; legislation, taxation, conventions, agreements, etc.

MAPS.

Every business firm interested in China trade should have on its office wall a good map of China. The so-called "production maps" of China are misleading, for the reason that it is practically impossible to indicate on a map, in a way approaching accuracy, the products of a country. The Asia Magazine has published a very useful, inexpensive map of Asia. J. Paul Goode's wall map of Eurasia, published by Rand, McNally & Co., Chicago and New York, is an excellent map for an American concern interested in our trade with Asia.

At the back of volume 1 of the present Commercial Handbook of China, two maps of China will be found.

SHIPPING BOARD FREIGHT RATES FROM THE UNITED STATES TO CHINA.

The following table shows the commodity rates, effective November 5, 1919 (except as noted in individual items), from the Pacific coast ports of the United States to Hongkong, Shanghai, Kobe, Yokohama, and Manila, via direct steamers. This statement of rates is issued by the Division of Operations, United States Shipping Board:

Item No.	Commodity.	Rates (ship's option).	
		Per 100 pounds.	Per cubic foot.
5	Acids, on deck, in carboys completely inclosed and necks protected on all sides by wood; also in glass bottles or metal cans, boxed		$0.62½
10	Agricultural implements, n. o. s., in packages		.43¾
15	Alcohol	$1.00	.50
20	Ammonia, anhydrous, in steel cylinders	1.25	
25	Ammonia, aqua, in iron drums	1.00	.50
30	Ammonia, sulphate of, in bags	.75	
35	Ammunition, in cases	1.25	
40	Arsenic, crude, in kegs	1.00	.50
45	Asphalt, in barrels or drums		.37½
50	Automobiles, freight, boxed		.30
55	Automobiles, passenger, boxed		.33¾
60	Automobile chassis, in boxes		.30
65	Bark, tan, ground, in packages		.50
70	Bark, tan, extract of, in barrels		.62½
75	Beans	1.00	.50
80	Beds, iron, in packages	.70	.35
85	Beer, in glass, in cases		.50
90	Bones, not human; hoofs; horns; cattle tails, not odorous or wormy, in packages	.90	.45
92	Bones, not human (effective Nov. 11, 1919)	1.00	
95	Boots and shoes; also rubbers, in boxes		.40
100	Calcium carbide, in iron drums	1.00	
105	Canned goods, n. o. s., in metal cans, boxed		.40
110	Carbon black, in boxes		.40
112	Cement (effective Nov. 11, 1919)	.60	
115	Clay products, viz: Brick, common or fire; fire clay; terra cotta, in crates	1.00	.50
120	Condensed milk, in metal cans, boxed	.70	.35
125	Coffee	1.00	.50
130	Confectionery, n. o. s., including chewing gum and chocolate	1.00	.50
135	Copper bars and ingots; also sheet copper	.75	
140	Cornstarch, in boxes		.47½
145	Corpses, human, boxed as required by Public Health regulations	60.00 per corpse.	
150	Cotton, raw, in bales, high density	1.50	
155	Cotton, raw, in bales, standard	1.75	
160	Drugs and medicines, boxed		.40
165	Dry goods, viz: Cotton piece goods, dry goods, n. o. s		.35
170	Dyestuffs, in barrels or kegs	.85 Or 2% ad valorem.	.42½
175	Electrical appliances and supplies, n. o. s		.40
180	Explosives (see Rule 3)	3.75	1.87½
182	Ferro manganese (effective Nov. 11, 1919)	.75	
185	Fertilizer, n. o. s	.90	.45
190	Films, moving-picture, in boxes	2% ad valorem.	
195	Fish, dried, pickled, or salted, in packages Bills of lading to be claused as follows: When in iron or wire bound packages—"*Perishable cargo.*—Steamer not accountable for deterioration, shrinkage in weight, nor for wrong delivery resulting from indistinct or obliterated marks." When not in iron or wire bound packages—"*Perishable cargo.*—Steamer not accountable for deterioration, shrinkage in weight, for loss resulting from broken or insecure packages, nor for wrong delivery resulting from indistinct or obliterated marks."	1.00	.50
200	Formaldehyde, in carboys or in glass or earthenware packages, packed in boxes	1.00	.50
205	Fruit, dried, in boxes		.50

Item No.	Commodity.	Rates (ship's option).	
		Per 100 pounds.	Per cubic foot.
210	Fruit, fresh, in boxes		$0.50
215	Furniture, n. o. s., in packages		.50
220	Ginseng, in packages	$6.00	
225	Glass, common window, in packages	.65	.32½
230	Glass, plate, in packages	.75	.37½
235	Glassware, n. o. s., in boxes, barrels, or crates		.60
240	Glucose, in barrels	.60	
245	Glycerin, in barrels or iron drums	.70	.35
250	Grain and grain products, viz:		
	Barley, oats, rye, in sacks	1.00	
	Wheat, in sacks	.60	
	Flour, in sacks	.50	
	Malt, in packages		.40
	Shippers of flour must furnish with each shipment 2 per cent of empty bags to be used for rebagging during loading and discharge.		
255	Groceries. n. o. s	1.00	.50
260	Hardware, n. o. s	1.00	.50
265	Hay		.35
270	Hides, green or salted, in bales or bundles	1.00	.50
275	Hops, in bales or boxes		.50
280	Household goods, including secondhand furniture, books, and personal effects:		
	Carrier's liability limited to $10 per 100 pounds in case of loss or damage, and so stipulated on bill of lading	1.00	.50
	When not stipulated on bill of lading	2.00	1.00
285	Ink, printer's, in barrels, boxes, or kegs		.50
290	Iron and steel articles of, viz: Angles, axles, band iron, bars, billets, beams, blooms, bolts, boiler tubes, bridge material, castings (in packages), channels, concrete reinforcements, hoop iron, horseshoes (new), ingots (iron and steel), nails, nuts, pig iron, plates, rails (not exceeding 33 feet in length), rail accessories, rods, structural, sheets, slabs, staples, shafting, trolley poles, tubes, tees, tin plate, wire (barbed, plain, or galvanized), wire shorts, wheels (car, loose), wagon tires (new)	.60	.30
	Bills of lading to be indorsed: "Ship not responsible for breaking of bundles and/or condition of contents, nor for wrong delivery of sizes resulting from obliteration of marks during shipment."		
295	Pipe, iron and steel, not over 6 inches in diameter	.60	
300	Pipe, iron and steel, over 6 inches in diameter		.46
305	Junk, in packages, viz, horseshoes, leather, rope, rubber, wagon tires, old; rags; scrap metals; steel cuttings	.75	.37½
307	Junk, viz, horseshoes old in packages; steel cuttings, in boxes or barrels (scraps, cutouts, etc., from steel plates); wagon tires, in halves, in bundles (effective, Nov. 15, 1919)	.60	
310	Lead, pig, and sheets in cases	.60	
315	Lead goods, in packages, n. o. s	.75	
320	Leather, in bales, cases, crates, or rolls		.50
325	Lime, acetate of, in packages	.85	
330	Lime, chloride of, in packages		.35
335	Live stock, viz (see Rules 8 and 11):	Each.	
	Bulls	$110.00	
	Calves, under 12 months	45.00	
	Colts, under 12 months	60.00	
	Cows	75.00	
	Hogs	25.00	
	Horses	110.00	
	Sheep	20.00	
	Stallions	135.00	
340	Lumber and timber, viz:	Per 1,000 ft. B. M.	
	Sizes not exceeding 24 by 24 inches or 40 feet in length	$35.00	
	Lengths over 40 and not exceeding 50 feet	40.00	
	Lengths over 50 and not exceeding 60 feet	50.00	
	Creosoted (in addition to above rates)	5.00	
	Bills of lading to be indorsed: "Ship not responsible for chafage, splitting, or discoloration." Carriers reserve the option of carrying lumber or timbers on deck at owner's risk.		
345	Machinery, machines, n. o. s., and boilers	.80	.40
350	Machines, sewing, in boxes		.37½
355	Merchandise, n. o. s., in packages	.80	.40
360	Motor cycles, in boxes or crates, and parts thereof in boxes		.37½
365	Newspapers, old, in bales or bundles		.40
370	Oil, viz:		
	Fuel, in barrels		.42½
	Linseed, in barrels	1.00	.50
	Lubricating, in barrels or cases		.42½
375	Packing-house products, in packages (see Rule 11)		.50
380	Paint, in packages (exclusive of artists' paints, ultramarine blue, bronze powders or flitters, carbon black, or Paris green), viz: White or red lead, in kegs; kalsomine and similar wall finishes, dry, in sacks; litharge, in barrels or boxes; putty, in boxes; varnish, in metal cans, boxed or in barrels; paint, n. o. s	.87½	.43¾

Item No.	Commodity.	Rates (ship's option).	
		Per 100 pounds.	Per cubic foot.
385	Paper and articles of paper, including box board, in packages	$0.80	$0.40
390	Paraffin wax, in barrels or double sacks		.37½
395	Petroleum products, viz:		
	Benzene, distillate, gasoline, naphtha, in metal cans boxed, or in iron drums		.62½
	Kerosene, in metal cans boxed		.40
400	Photographic material, n. o. s., in cases		.40
405	Plumbers' goods, in packages, as specified in current W. B. Transcontinental Rail Tariffs	.70	.35
410	Quicksilver, in flasks	2% ad valorem	
415	Railway equipment and supplies	.70	.35
420	Refrigerator cargo (when facilities available)	1.75	.87½
425	Roofing paper, in rolls; tin roofing caps, or wooden strips		.40
430	Rope, wire, in reels	.60	
435	Rosin, in barrels	.85	
440	Safes and vaults, and parts thereof	1.00	.50
445	Salt, in packages (see Rule 9)	.60	.30
450	Seaweed, in packages		.50
455	Shooks, box, in bundles		.25
460	Soap and soap powders, in boxes	.75	.37½
465	Soda ash, in barrels or sacks	.90	
470	Soda, caustic, in boxes or drums	.60	
475	Soda, nitrate of, in packages	.75	
480	Spelter	.60	
485	Staves and headings, in packages		.35
490	Sugar, in packages	1.00	.50
495	Sugar of milk	.80	.40
500	Thread, in boxes		.45
505	Tin cans, crushed, and scrap tin, in bales	.60	.30
510	Tires, rubber, pneumatic or solid, in packages		.37½
515	Tobacco, manufactured, viz:		
	Cigarettes, in cases		.37½
	Plug, in boxes		.35
	Smoking, in boxes		.37½
	Unmanufactured	2.00	
	Unmanufactured (effective Nov. 11, 1919)	1.75	
520	Tractors, in packages	.70	.35
525	Treasure, viz, bullion, gold and silver; coins, gold and silver, in boxes:	Per $1,000.	
	Value of shipment, $10,000 and under	$10.00	
	Value of shipment, $10,001 to $50,000	7.50	
	Value of shipment, $50,001 to $100,000	6.25	
	Value of shipment, $100,001 to $150,000	5.00	
	Value of shipment, $150,001 to $200,000	4.75	
	Value of shipment, $200,001 to $250,000	4.50	
	Value of shipment, $250,001 to $300,000	4.25	
	Value of shipment, $300,001 to $350,000	4.00	
	Value of shipments, over $350,001	3.75	
	Minimum bill of lading charge, $20.		
530	Turpentine, in metal cans boxed		.35
535	Valuable cargo, n. o. s.	2% ad valorem	
	Valuable cargo rate applies on all cargo where 2 per cent of the actual value at time and place of shipment yields a greater freight charge than the commodity rate.		
540	Wheelbarrows, in packages		.43¾
545	Wines, liquors, and spirits	1.00	.50
550	Wire fencing, in rolls		.45
555	Wood pulp, in packages	.75	
560	Zinc plates and slabs; also sheet zinc in packages	.60	

Following are the rules and regulations governing shipments:

RULE 1. *Application of rates.*—(*a*) When commodities are not shown herein, general merchandise rates will apply.

(*b*) Rates named herein apply from and to ship's tackle. Tolls, wharfage, lighterage, cost of landing, and all other expenses beyond ship's tackle will be for account of owner, shipper, or consignee.

(*c*) Rates named herein do not include marine insurance.

RULE 2. *Charges for heavy lifts and extra lengths.*—The following charges will be assessed in addition to the freight rate on all packages or pieces weighing 4,001 pounds or over: 4,001 to 8,000 pounds, add $4 per 2,000 pounds; 8,001 to 12,000 pounds, add $6 per 2,000 pounds; 12,001 to 16,000 pounds, add $9 per 2,000 pounds; 16,001 to 20,000 pounds, add $13 per 2,000 pounds; 20,001 to

30,000 pounds, add $17 per 2,000 pounds; 30,001 and over, special contract. Lengths over 30 feet and not over 60 feet, add 1 cent per 100 pounds for each foot over 30 feet. Over 60 feet, special contract.

RULE 3. *Explosives, dangerous, and objectionable cargo.*—Explosives, inflammable, or other dangerous cargo may be transported, if the carrier chooses, on deck or elsewhere, and shall in cases be at owner's risk. Handling will be subject to rules and conditions which govern at the port.

RULE 4. *Minimum charge per bill of lading.*—The minimum charge per bill of lading will be $5; except that on shipments of samples, not exceeding 50 pounds or 2 cubic feet, charge of $2.50 will apply.

RULE 5. *Payment of freight charges.*—Freight and other charges must be prepaid on all shipments in United States gold coin.

RULE 6. *Packing rules.*—All shipments to be offered in suitable condition for ocean transportation and will be subject to rules as published by individual operators.

RULE 7. *Provisions of bill of lading.*—All rates named herein are subject to all terms of the carrier's bill of lading in current use at time of shipment.

RULE 8. *Live stock.*—Live stock will only be handled on live stock contract of individual operator at steamer's convenience and at owner's risk. Ship not responsible for death or injury from any cause whatsoever. Stalls will be furnished by the steamer at expense of shipper. Fare and accommodation for attendants, if any, must be arranged in advance with operator or agent of steamer. Feed to be furnished by shipper; feed not consumed in transit and discharged at destination to be paid for at regular rates.

RULE 9. *Excepted commodities.*—(*a*) Shipments of salt for Shanghai and other points in China (except Hongkong, which is under British control) will not be accepted for transportation, except when shipper or consignee holds permit from the Chinese Government.

(*b*) The importation of salt into Japan is prohibited except by or for account of the Japanese Government or those specially appointed by the Government.

RULE 10. *Transshipments to the Philippines.*—Under a ruling of the United States Treasury Department goods, the growth, product, or manufacture of United States, moving under through bill of lading, may be transshipped at Hongkong and admitted into the Philippines under the same conditions as regards customs duties as when shipped by direct steamer, providing the vessel on which goods are shipped does not call at any port in the Philippines. Goods from a steamer which has passed through a port of the Philippines which are transshipped at a foreign port to another steamer and forwarded to a port in the Philippines will be subject to duty.

RULE 11. *Government regulations.*—Live stock, meat or meat products, tallow, grease, or other fats—shipments are to be accompanied by certificates as may be required by regulations of the United States Government.

Rates to Iloilo, P. I.—When sufficient cargo offers to justify direct call at Iloilo, add the following arbitrary to rates quoted herein to Manila: 15 cents per 100 pounds; 7½ cents per cubic foot.

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